Chapter I: Polices and Process Redesign

Table of Contents

Computerized Prescriber Order Entry (CPOE) Policy

CRIS will support the Medical Executive Committee (MEC) Computerized Prescriber Order Entry (CPOE) compliance objectives and greater participation in CPOE. CRIS will make it easier for Prescribers and Affiliate Medical Staff to enter orders.

NOTE: Refer to **Medical Administrative Series Policy #M04-1 Medical Orders in the Clinical Center** for more information.

Prescribers and Affiliate Staff

Prescribers are defined as physicians, physician's assistants, nurse practitioners, nurse anesthetists, podiatrists, and dentists. A Prescriber can request a medical order.

Affiliate staff can request medical orders ONLY on behalf of a Prescriber. Affiliate staff can also request certain service requests within their own department.

CRIS Affiliate Medical Staff Listing

Acupuncturist	Anesthesia Technician
Clinical Health Technician, Nutrition	Cytology Technologist
Diagnostic Radiology Technologist	Dental Hygienist
EEG Technician	EKG Technician
EMG Technician	Genetics Counselor
Infection Control Consultant	Laboratory Technologist
Nuclear Medicine Technologist	Nurse (RN)
Nurse (includes LPN)	Occupational Therapist
Ophthalmic Technician	PET Technologist
Perfusionist	Pharmacist
Pharmacy Technician	Phlebotomist
Physical Therapist	Physical Therapy Assistant
Pulmonary Function Technologist	Radiation Therapist
Recreation Therapist	Recreation Therapy Specialist
Registered Dietician	Respiratory Care Practitioner
Social Worker	Speech Language Pathologist
Spiritual Minister/ Chaplain	Surgical Technologist
Transfusion Medicine Technologist	Vocational Rehabilitation Technician

Table 1: CRIS Affiliate Medical Staff Listing

NOTE: Refer to **Medical Administrative Series Policy #M90-5 Credentialing Health Practitioners at the Clinical Center** for more information.

For the purposes of CRIS, the following staff has the same rights as the Affiliate Medical Staff:

- Laboratory Technologist
- Cytology Technologist

Medical Orders and Service Requisitions

A medical order directs the execution of specific activities prescribed as part of a diagnostic, therapeutic, and/or research program. Medical orders can be authored for various categories of persons (i.e., patients, healthy volunteers, donors) or research samples (e.g., tissue screenings). Additionally, orders can direct activity at various locations, properly associated with the NIH and the Clinical Center.

- Only an authorized Prescriber may author a medical order because of the legal requirements for professional licensure, standards of accreditation and scope of approved practice.

A service requisition is exactly the same as a medical order except that it can be authored by an affiliate staff member. For example, transport of a patient by Messenger/Escort is classified as a service requisition because it does not need to be restricted for use by a Prescriber due to legal requirements for professional licensure, standards of accreditation and scope of approved practice.

- Service requisitions are used primarily to improve efficiency.
- From a systems functionality point of view, CRIS treats a service requisition exactly as it does a medical order.

Below is a sample list of common service requisitions for select areas.

Service Requisition Listing – Affiliate Medical Staff	
ADT	**Medical Records**
Intra-unit Bed Change	Electronic Information Retrieval
Transfer Order (Internal-Outpatient)	Information Release: Outside 3rd Party
Bioethics	Inpatient Chart Consolidation
Bioethics Consult	Non-Clinical Retrieve and Hold Record
Clinical Video/Photo	**Messenger Escort Service**
Clinical Photography	Patient Transport
Clinical Videography	**Nutrition**
DASS	Nutrition Consult: (Clinical)
Off Site Anesthesia Request	Nutrition Consult: (Research)
OR/Anesthesia Request	Oral Supplements
DTM	Paper Tray Service
Blood Pickup Service Request	Special Nutrition Requests
	Meal Delivery: Interrupt

Service Requisition Listing – Affiliate Medical Staff	
Pharmacy	**Social Work**
Med/IV Replacement	Assessment Consult- Social Work
Radiology (Imaging Sciences)	Counseling - Social Work
Digital Film Library Copy Request	Discharge Planning - Resources
DX Read Outside Film	Education - Social Work
NM Read Outside Scan	Language Interpreter - Social Work
NM Reanalyze Scan	Patient Resources - Social Work
PET Diagnostic: Read Outside Films	Social Work - Participation in Conference
	Spiritual Ministry
	Spiritual Ministry

Table 2: Service Requests Orderable by AMS

Service Requisition Listing – Restricted to Department Staff	
ADT	**Medical Records**
Protocol Special Exemption	Outpatient Administrative Expiration
Critical Care Medicine	**Office of Protocol Services**
ACT, Whole Blood, Arterial, CCMD	Protocol Special Exemption
ACT, Whole Blood, Venous, CCMD	Remove Patient from Protocol
Blood Gases, Arterial, CCMD	**Radiology**
Blood Gases, Venous, CCMD	NM Read Outside Scan
Cooximeter, Arterial, CCMD	PET Diagnostic: Read Outside Films
Cooximeter, Venous, CCMD	**Rehabilitation Medicine**
Glucose, Whole Blood, Arterial, CCMD	Art Therapy
Glucose, Whole Blood, Venous, CCMD	Human Movement Disorders Restricted
Lytes, Whole Blood, Arterial, CCMD	Massage Therapy
Lytes, Whole Blood, Venous, CCMD	Music Therapy
DASS	Occupational Therapy
Surgical Services Location Change - IP	Oral Motor Function - Restricted
Surgical Services Location Change - OP	Physiatry (Rehab Physician)
DTM	Physical Therapy
Research Human Cell/Tissue Processing Svc	Recreation Therapy
Epidemiology	Rehab Electro-Diagnostic Study
Isolation - Acid Fast Bacilli (AFB)	Modified Barium Swallow
Isolation - Cent Nerv Sys Precaut (CNS)	Speech Language Pathology
Isolation - Contact	Vocational Rehabilitation
Isolation - Respiratory	
Isolation - Special Respiratory	
Isolation - Strict	

Table 3: Restricted Service Requests

Visits

Purpose: The purpose of visits in CRIS is to associate orders, documentation, and results with specific patient (or specimen) activities or encounters at the Clinical Center. Time frames for the duration of a visit may be highly variable. Only one visit may be active at any given time for a patient. Once opened, a visit remains open until a subsequent visit is created, or until a patient no longer participating in any research protocol is deemed inactive or expires.
Types: There are seven visit types in CRIS:

- **Pre-NIH Registration**: This visit is used only in advance of a patient's first clinical encounter at NIH. It is closed at the time of initial registration, when the visit is changed to either inpatient or outpatient. "Pre-Admit" orders may be entered in this visit type in anticipation of a patient's first outpatient or inpatient encounter at NIH.
- **Inpatient**: This visit is used for every inpatient admission. It is closed at the time of discharge from the inpatient setting.
- **Outpatient**: This visit is used for patients who are seen as an outpatient. Every consecutive outpatient appointment or encounter, including the day hospital, is included in a single outpatient "visit" in CRIS. It is closed only when the patient is admitted, is deemed inactive, or expires.
- **Historical**: This is used only for back-loading historical MIS patient information.
- **Specimen**: This visit is used in very limited circumstances for tests on specimens that are not tied to specific Clinical Center patients.
- **OMS (Occupational Medicine Service)**: This visit is used only for patients (employees) seen by OMS. OMS records in CRIS will remain separate from those for employees who are also enrolled in clinical trials.
- **Expiration**: This visit is created when a patient enrolled in a protocol expires (whether at the Clinical Center or elsewhere). Autopsy orders may be entered during this "visit."

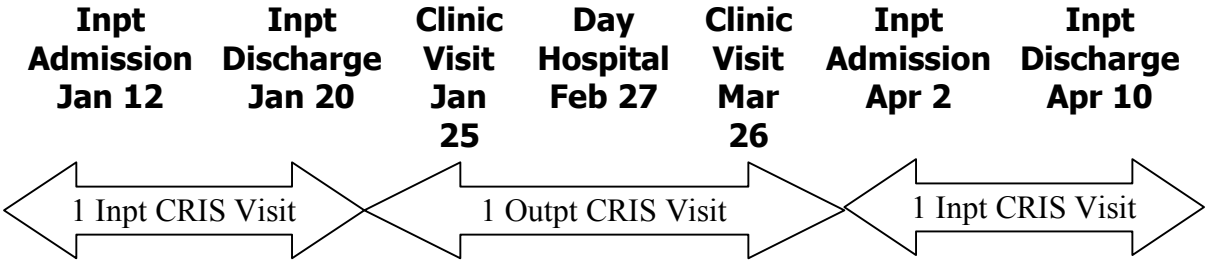


Figure 1: Inpatient and Outpatient Visits

Admission Discharge Transfer and Pass

The ADT group of processes includes the admission, discharge, internal and external transfer, and pass processes. These orders are sometimes referred to as 'enterprise orders'.

MIS will remain in place as the ADT system for CRIS Phase 1. All patient demographic information will be maintained in MIS, and will continue to be entered and updated only by Admissions staff. An interface between MIS and CRIS relays updated ADT information from either system to the other in real time. MIS also sends updated ADT information to the ancillary information systems, such as lab and radiology.

Policies for ADT and Pass remain essentially unchanged. Process changes described here are required because of changes in order management in CRIS.

The NIH Form 54 in MIS is now in the Admissions, Travel and Voucher (ATV) web-based system. This system is used to request different services, including admission, protocol entry, and travel arrangements. Staff will continue to request admission and protocol entry using the ATV system.

In CRIS, any protocol in which a patient is participating is listed in the Patient Info tab and the Summary tab under Health Issues. Patients are assigned to a primary protocol through the use of a Form 54/ATV. Patients may be assigned to secondary protocols using a signed consent form faxed to the Medical Records department. Medical Records department personnel can then enter this information (the protocol number) into the Health Issues in the patient record.

ADT: No Change

- Initial admission to NIH and every admission as an inpatient at the Clinical Center is authorized using the Form 54/ATV system.
- MIS will remain in place as the ADT system for CRIS Phase 1.
    - All demographic information is maintained in MIS.
    - Demographic information will continue to be entered and updated only by Admissions staff.
- Medical orders are required for inpatient transfer, discharge, and pass.
- External transfer and discharge orders must be entered by prescriber; they cannot be entered by an 'agent for' a prescriber.
- Bed assignment is nursing's responsibility.
- Demographic information in MIS can be entered or changed only by Admission staff.
- Prescribers are responsible for reviewing, re-instating, and/or changing patient care orders when a patient moves from one unit or level of care to another. The importance of order review by prescribers anytime there is a change in the level of care of a patient must be emphasized.

ADT: Major points of change

- CRIS includes the functionality to enter orders as conditional. The nurse manually activates the order when the condition set forth by the prescriber is met. The condition is designated in a free-text box during the order process and is viewable in the order display. Most ADT medical orders are conditional.
    - Inpatient transfers to other units (except to the OR), discharge, and pass orders are entered as conditional orders.
    - Inpatient transfers to the OR, Discharge-AMA/AWOL, and Discharge–Expiration are not entered as conditional orders.
- All ADT medical orders require at least two steps, sometimes three. These include entering the order, activating the order (for conditional orders), and completing the order.
- Nurses manually activate (start) and complete (close) conditional ADT orders. It is important to note at which point in each process this occurs.
- Nurses perform bed assignment in CRIS (rather than MIS), using a specific service requisition.
- Outpatients can be temporarily moved between outpatient settings in CRIS, including the OR, by a nurse using a service requisition.
- A service requisition is used by DASS nurses to move a patient within the OR/PACU, back to the unit of origin, or to the ICU (if preplanned).
- A medical order is needed to move a patient from the OR/PACU to any unit other than the unit of origin or to the ICU (if not preplanned).
- There is no automatic completion of ADT medical orders. In contrast, ADT service requests are completed automatically.
- MIS automatically suspends active orders when an inpatient is transferred to another unit or level of care. In CRIS, there is no automatic suspension of orders. Nurses are responsible for manually suspending all active orders at the time of transfer for inpatients.
    - Nurses do not independently 'unsuspend' medical orders; this is a prescriber responsibility.
- The nurse will manually suspend all active orders when activating a pass order.
    - Prescribers are responsible for including explicit direction in the conditional pass order regarding which orders to unsuspend when a patient returns from pass.
- Temporary locations in CRIS are used by certain procedural and testing areas (e.g., dialysis, EKG) where patients are not permanently assigned.

ADT: Key Concepts

- ADT and pass medical orders appear and are activated, if conditional, and completed on the worklist.

- Nurses manually activate (start), if conditional, and complete (close) ADT medical orders. It is important to note at which point in each process this occurs.
- Most often, the nurse suspends active orders when an inpatient is transferred (internal, external, and pass). In a pass order, prescribers must indicate which orders to unsuspend when the patient returns.
- Service requisitions exist for nurses to move patients among outpatient settings, including the OR, to assign a patient to a bed within the unit, and for OR/PACU nurses to move a patient within the OR/PACU and back to the sending unit or the ICU (if planned).

ADT Orders Details						
ADT Order	**Purpose**	**Order Type**	**Conditional?**	**Activation**	**Management of Pt's Active Orders**	**Completion/ Closing of ADT Order**
Internal Transfer – Inpatient (*except OR*)	To move patients between different IP care units	Med Order entered by Prescriber	Yes, except to OR	RN manually activates order on worklist	All active orders manually suspended by RN on transferring unit	Marked as done on worklist by RN on sending unit upon transfer
Internal Transfer-Inpatient *(to OR)*	To move patient to the OR for a procedure	Med Order entered by Prescriber	No	Active at time of entry	All active orders manually suspended by RN	Marked as done on worklist by RN on transferring unit upon transfer
Internal Transfer-Inpatient *(from OR or PACU to ICU or new Patient Unit)*	To move patient who unexpectedly will not be returning from surgery to their originating unit	Med Order entered by Prescriber	If needed	Active at time of entry, unless conditional. RN manually activates cond. order on worklist	Post-op orders should be entered and/or unsuspended prior to transfer	Marked as done on worklist by RN in OR/PACU upon patient's transfer
Intra-Unit Bed Change	To check patient into a specific bed on a nursing unit assigned by Admissions	Service Requisition entered by RN on receiving unit	No	Active at time of entry	N/A	Auto-completes immediately

ADT Orders Details						
ADT Order	**Purpose**	**Order Type**	**Conditional?**	**Activation**	**Management of Pt's Active Orders**	**Completion/ Closing of ADT Order**
Internal Transfer – Outpatient (*including OR*)	To move patients between different OP care settings	Service Requisition entered by RN	No	Active at time of entry	Order suspension not necessary unless ordered	Auto-completes immediately
External Transfer	To move patients to off-site facilities for further evaluation or care	Med Order entered by Prescriber	Yes	RN manually activates order on worklist when patient leaves CC	All active orders manually suspended by RN	Marked as done on worklist by RN on receiving unit when patient returns to CC
Surgical Services Location Change-IP or OP	To move patient within the OR area or from the OR to the originating unit or clinic	Service Requisition entered by RN	No	Active at time of entry	Post-op orders should be entered and/or unsuspended prior to transfer	Auto-completes immediately
Discharge - Routine	To discharge a patient from an inpatient hospital stay	Med Order entered by Prescriber only	Yes	RN manually activates order on worklist	New orders for Take Home Medications entered if needed. All active orders auto-discontinue four hours after discharge	Marked as done on worklist by RN on discharging unit upon discharge
Discharge – Expiration	To discharge a patient who has expired while at the CC	Med Order entered by Prescriber only	No	Active at time of entry	All active orders auto-discontinue four hours after discharge	Marked as done on worklist by the RN
Discharge	To discharge a	Med Order	No	Active at time	All active orders auto-	Marked as done on

ADT Orders Details						
ADT Order	**Purpose**	**Order Type**	**Conditional?**	**Activation**	**Management of Pt's Active Orders**	**Completion/ Closing of ADT Order**
– AMA/ AWOL	patient who has left AMA or is AWOL	entered by Prescriber only		of entry	discontinue four hours after discharge	worklist by RN on discharging unit
Pass	To allow inpatients to leave the CC for a set period of time	Med Order entered by Prescriber	Yes	RN manually activates order on worklist when patient leaves CC	Prescriber designates orders to un-suspend upon patient's return All active orders are suspended by RN when patient leaves on pass Orders are unsuspended by prescriber or RN when pt returns to CC - New orders for Take Home Meds are entered if needed	Marked as done on worklist by RN on receiving unit when patient returns to CC

Table 4: ADT Orders Table

Administrative Transfers
Inpatients are sometimes transferred to other inpatient units for administrative rather than clinical reasons. An example of this is when census is low in the Clinical Center, as may occur over a holiday weekend, and patient locations are consolidated to ensure quality care. The movement of patients in these circumstances does not necessitate a medical order from the prescriber.

In MIS, nurses were able to change the patient location without notifying Admissions. In CRIS, in the absence of a medical order, the Admissions personnel must perform the transfer in MIS to achieve the move in CRIS. This is accomplished through verbal and written communication between the nursing units and Admissions. The process is followed again when patients are transferred back to their units of origin.

No change
- Administrative transfers of patients do not require a medical order.
- Active patient care orders do not need to be suspended or reviewed by a prescriber in an administrative transfer, as the level/type of care has not changed.

Major points of change
- Nursing will communicate the anticipated movement of patients with the Admissions personnel through a phone call and with written documentation.
- Admissions personnel will manually change the patient location in MIS.
- Admissions personnel will communicate the completion of patient movement in MIS to nursing through a phone call.

Process flow – Administrative Transfer
1. The unit charge nurse prints a patient list or census from CRIS which includes all patients on the unit who are being transferred.
2. The charge nurse indicates in writing on the list to which unit these patients will go.
3. The charge nurse phones Admissions to alert the staff that the requested changes are being sent.
4. The list is sent to Admissions via the tube system.
5. Admissions personnel make the patient location changes in MIS.
6. Nurses move the patients to the new location.
7. Admissions will phone the accepting unit to confirm that the location change has been completed in MIS.
8. Nurses assign the patients to beds in the new unit in CRIS using an intra-unit bed change service request.

Admission
The admission process is initiated for any inpatient admission or first-time outpatient visit once the institute has prescreened a patient for protocol entry. A multipurpose form, the Form 54, currently exists to request admission as well as other services, such as travel and protocol entry. The Form 54 is completed on paper or electronically in MIS, sent to and then printed in Admissions. The MIS version of the Form 54 will not exist in CRIS. An electronic version of the Form 54 known as the Admissions, Travel, and Voucher (ATV) system is planned for the Hospital Services web site at http://atv.cc.nih.gov.

The CRIS admission process is very similar to the prior MIS process. ADT information continues to be stored and maintained in MIS. Admissions personnel enter and update patient information into MIS. This patient registration information crosses a real-time bidirectional interface from MIS to CRIS. Once the initial information has crossed from MIS to CRIS, Prescribers can enter orders on a patient in CRIS. All patient orders are entered in CRIS.

The protocol number is included in the Form 54/ATV system and entered into MIS by the Admissions staff. The protocol number crosses from MIS to CRIS with the patient's demographic information. Patients are assigned to a primary protocol through the use of a Form 54/ATV. Patients may be assigned to secondary protocols using a signed consent form faxed to the Medical Records department. Medical Records department personnel can then enter this information (the protocol number) into the Health Issues in the patient record.

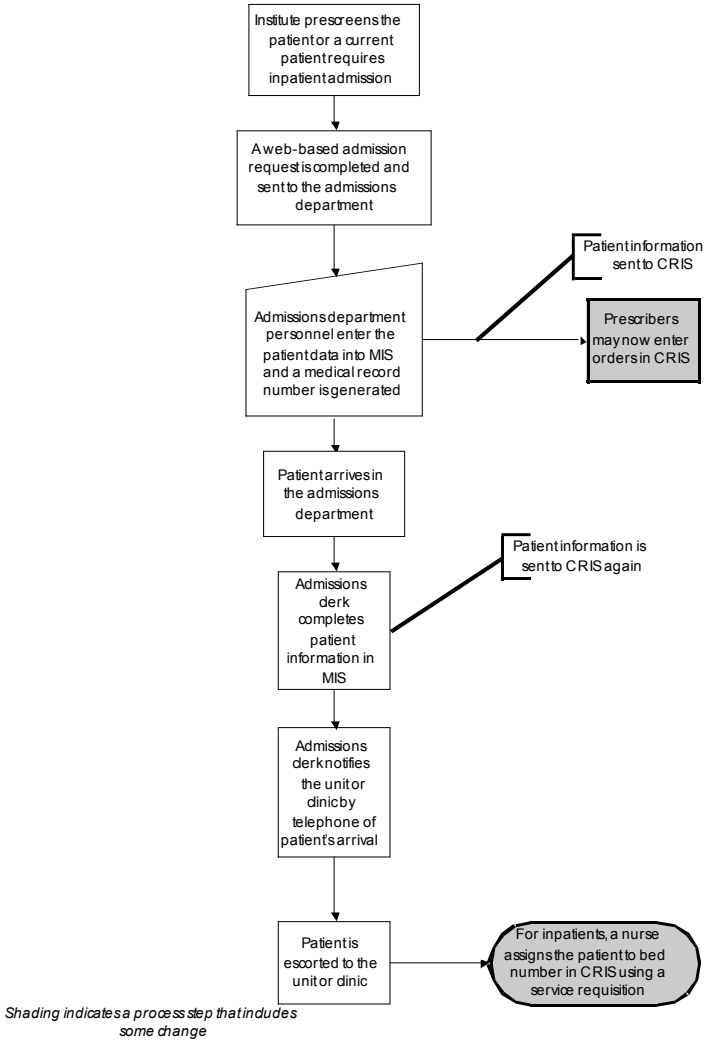
The final step in the inpatient admission process is the assignment of a patient to a bed. Upon the patient's arrival to the inpatient unit, the nurse completes the bed assignment in CRIS, using an intra-unit bed change service requisition.

Major points of change
- A web-based registration system (ATV) will replace the current Form 54.
- A nurse assigns a patient to a bed in CRIS using an intra-unit bed change service requisition.

CRIS Process Flow - Admission
1. A new patient is registering with the NIH after the institute prescreening or a current NIH patient requires inpatient admission.
2. The Prescriber or an authorized affiliate medical staff as an "agent for" the Prescriber completes a web-based request for admission (ATV) which prints in Admissions.
3. The Admissions clerk enters the patient data (including protocol number) into MIS and a medical record number is generated for new patients, or retrieved for existing patients.
   - Patient information is sent to CRIS.

4. The Prescriber or an "agent for" may now enter orders into the patient record in CRIS. Orders entered prior to a patient's arrival are entered as Future Outpt/Pre-admit session-type orders.
5. The patient arrives in Admissions.
6. An Admissions clerk completes patient information in the MIS, including assigning the patient to a unit or clinic as indicated on the admission request form.
   - Updated patient information is again sent to CRIS again.
7. The unit or outpatient clinic is notified of the patient's arrival by telephone.
8. The patient is escorted to the unit or outpatient clinic.
9. For inpatients, a nurse assigns the patient to a bed number in CRIS by entering an intra-unit bed change service requisition.

CRIS Process Flow - Admission



Discharge
Patients in the NIH setting are not discharged from the CRIS system. The term 'discharge' reflects a change in the patient status from inpatient to outpatient. Discharge from the Clinical Center information system only occurs after the expiration of a patient.

Patients are discharged from the Clinical Center once their physician enters a discharge order and any pre-discharge orders and activities, such as teaching or the preparation of take-home medications, are carried out. Nurses may not enter a discharge order as an "agent for" the Prescriber under any circumstances.

In MIS, the Prescriber may indicate that certain activities must be completed before the patient is physically discharged, but the discharge order itself is active when entered. Nurses complete their discharge summary once the patient has been readied and actually discharged from the Clinical Center. Nurses then manually transfer the patient from an inpatient bed in MIS to the outpatient clinic as assigned by the physician in the discharge orders.

In CRIS, the discharge order is entered as a conditional order. The conditions are specified in a free text dialog box when the order is entered. When the nurse is ready to proceed with the discharge activities, s/he activates the order in CRIS. When the conditions are met and the patient is leaving, the nurse completes the discharge documentation and manually completes the discharge order in the worklist. Completing a discharge order in CRIS causes the information that a patient is discharged to cross the interface back to MIS, the ADT system.

Admissions personnel do not have to take any manual action in MIS. The inpatient visit closes immediately, and a new outpatient visit is established. Active inpatient orders remain active in the patient record for an additional 4 hours to allow time for documentation of tests performed, etc., then auto-discontinue.

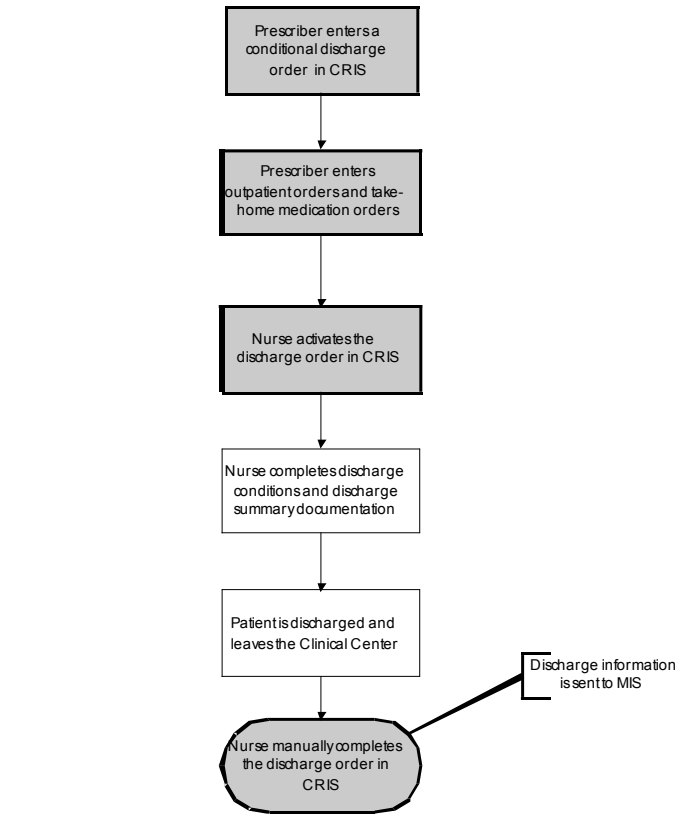
Major points of change
- An order to discharge a patient in CRIS is entered as a conditional order.
- The discharge order in CRIS must be manually activated by the nurse and then manually completed by the nurse when the patient is actually discharged from the Clinical Center.
- Take-home medication orders cannot be 'converted' but must be entered as new 'Take Home Medication' session-type orders or copied and re-ordered as Take Home Medication session type. This transmits the orders to the Outpatient Pharmacy and also enables the orders to cross visits, facilitating refills. (See Take Home Medication Process)

- Active orders remain active for 4 hours after the completion of the inpatient discharge order or any visit change (e.g., conversion from outpatient to inpatient).

CRIS Process Flow - Discharge

1. The prescriber enters a discharge-routine order in CRIS as a conditional order.
2. The prescriber stipulates the conditions as free text in the conditions dialog box. Conditions may include specific teaching, arrival and explanation of take-home medications, etc.
3. The prescriber enters future outpatient orders as 'Future Outpt/Pre-admit' session-type orders and take-home medications as 'Take Home Medications' session-type orders.
4. The nurse activates the discharge order in CRIS.
5. The nurse makes sure the discharge conditions are fulfilled and completes the discharge summary documentation.
6. The patient is discharged from the Clinical Center.
7. The nurse manually completes the discharge order in CRIS.
   - Patient status change from inpatient to outpatient is sent to MIS.

CRIS Process Flow - Discharge-Routine



Shading indicates a process step that includes some change

Temporary Patient Locations

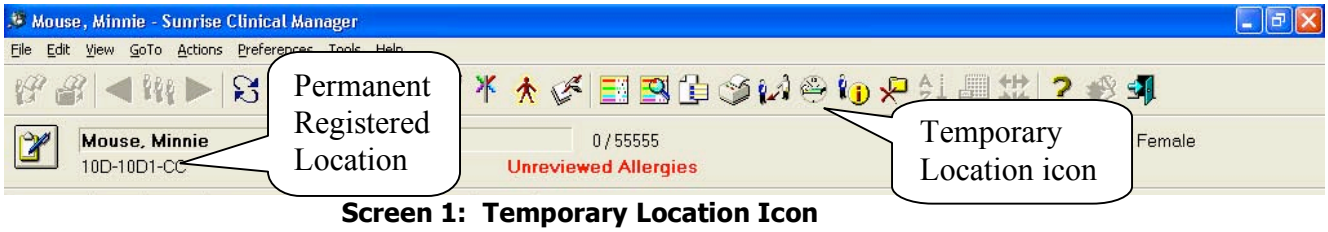
Inpatients and outpatients at the Clinical Center are frequently moved to various diagnostic and procedural areas of the hospital during the course of their care. For patient location and communication purposes, it is important to identify where the patient is located. CRIS displays the registered patient location in the header area at the top of each screen; this location is where CRIS will print order requisitions, test results, and labels by default.

Some patient care locations are not areas where a patient is routinely registered (e.g., hemodialysis). However, providers in those areas need to enter and receive printed orders and results in CRIS, because that is where the care is being delivered. To accommodate this notification need, CRIS provides a temporary location function accessible on the main patient screen.

To put a patient in a temporary location

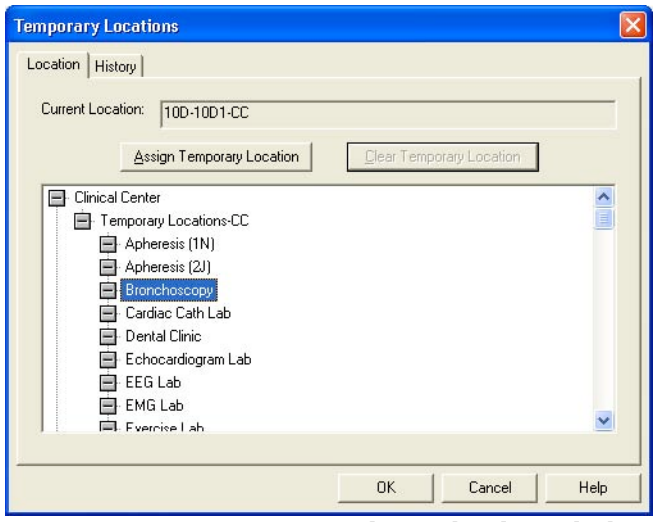
When a patient arrives in a temporary location, the staff in that area:

1. Click on the Temporary Location icon.



Screen 1: Temporary Location Icon

2. Select the appropriate temporary location from the Clinical Center list.

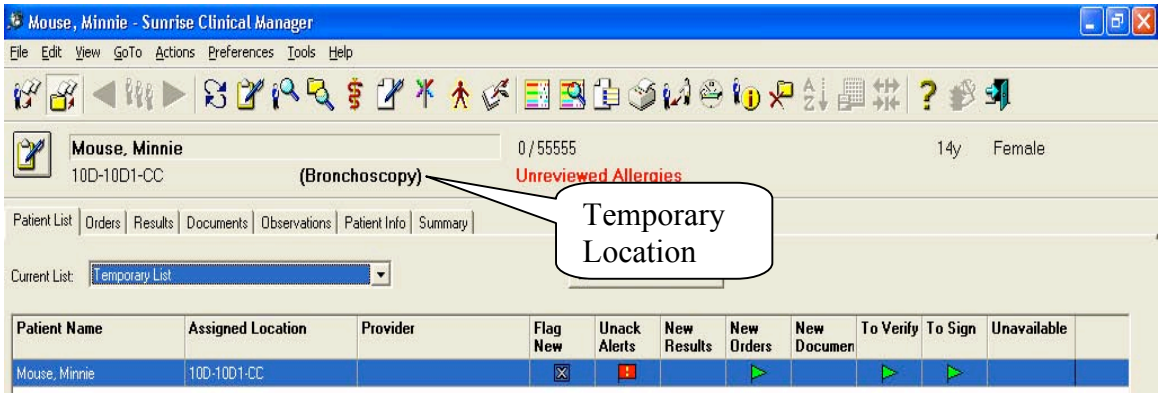


Screen 2: Temporary Location Selection window

Temporary Location Options in CRIS	
Apheresis (1N)	Eye Clinic
Apheresis (2J)	GI Endoscopy
Bronchoscopy	Hemodialysis
Cardiac Cath Lab	MICU Proc Room
Dental Clinic	Outpt Phlebotomy
Echocardiogram Lab	PFT Lab
EEG Lab	Radiation Therapy
EMG Lab	Radiology Proc Areas
Exercise Lab	Rehab Med Tx Area

Table 5: List of Temporary Locations

3. Click Assign Temporary Location.
4. Click OK. The temporary location is then noted parenthetically in the header.



Screen 3: Patient List with Temporary Location displayed

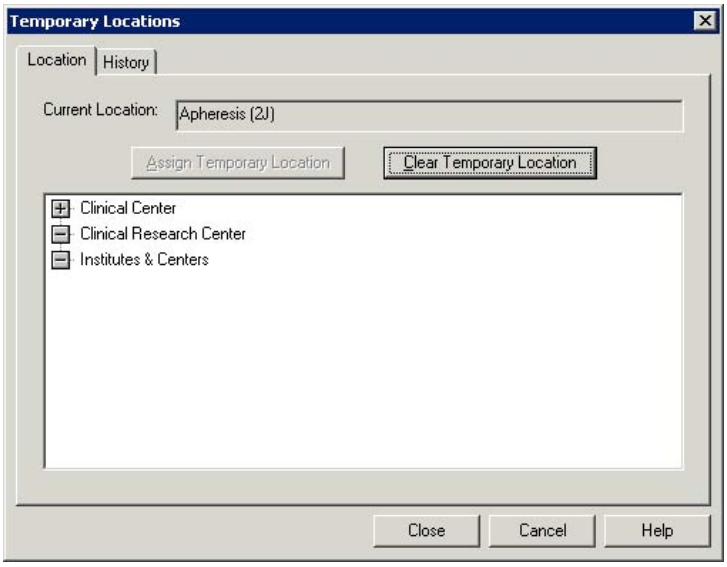
NOTE:

- Assigning patients to a temporary location does not affect their permanent registration location or visit type.
- Orders entered under the **Today Outpt/Current Inpt** session type while a patient is in a temporary location will print immediately at both a patient's permanent and temporary locations.
- Orders previously entered under the **Future Outpt/Pre-Admit** session type will print at both locations when the orders are released.
- Bar-coded lab labels will print at the patient's permanent location unless the temporary location is selected for label printing within the lab orders.

To return a patient to his/her 'permanent' location

When the patient is ready to leave the temporary care area, the staff in that area should "clear" the temporary location using the following steps:

1. Click on the **Temporary Location** icon.
2. Click the **Clear Temporary Location** button.



Screen 4: Clear Temporary Locations Button

3. Click **OK**.

Order Session Types

Purpose: The purpose of order session types is to indicate when orders should be active. Active orders print and are transmitted via interface to other clinical systems as needed. An order's session type is decided by the prescriber or affiliate medical staff as part of the order entry worksheet at the time the order is entered.

Types: There are 3 order session types in CRIS:

- **Today Outpt/Current Inpt:** This is the default session type on the order entry worksheet. These orders are active immediately, print immediately, and are available only in the current inpatient visit or same day outpatient visit. Exceptions include orders that first require verification (e.g., pharmacy); these orders are active and print only after verification. Orders are closed either by resulting, by manually completing, by canceling at the end of a visit, or by auto-discontinuing 4 hours after the close of a visit.

- **Future Outpt/Pre-Admit:** These orders are on "hold" when placed and become active and print when manually released in CRIS. Orders "holding" in this session type cross all visits until finally released during a particular visit; they are then associated only with that visit. They can be used for either future inpatient or outpatient visits. Once active, orders are closed by resulting, by manually completing, by canceling at the end of the visit, or by auto-discontinuing 4 hours after the close of a visit.

- **Additional notes on Future Outpt/Pre-Admit**

  - Orders placed in this session type must always include a "reason" (e.g., 8/25 OP13 visit, 9/15 admission)
  - Orders will print at the date/time of release, not date/time of entry
  - Orders will print at patient's current registered ADT location at time of release, not at location at time of entry
  - Orders entered under this session type will undergo checking for duplication at the time of release, not at the time of order entry.
  - The scheduled date of orders can be changed prior to being released, if clinically appropriate (e.g., patient early/late for scheduled visit)

- **Take Home Medications:** These orders are active and print immediately (after pharmacy verification), and are active across all visits (for purposes of refilling prescriptions) until closed by completion, manual canceling, or automated process based on CC policy. Take Home Medications include those prescribed in clinic for home use, in the hospital at the time of an inpatient discharge, and for use on pass. This session type must be used to transmit these orders to the outpatient pharmacy. Take home medications do not appear on the worklist manager.

Session types may be used in the various visit types as illustrated in the following chart:

Visit Type	Session Types		
	Today Outpt/Current Inpt	Future Outpt/Pre-Admit	Take Home Medications
Pre-NIH Registration	N/A	Allowed	N/A
Inpatient	Allowed	Allowed	Allowed
Outpatient	Allowed	Allowed	Allowed
Specimen	Allowed	N/A	N/A
OMS	Allowed	Allowed	N/A
Expiration	Allowed	N/A	N/A

Table 6: Visit Type with Order Session Type

Take Home Medications

Summary

Prescribers order take-home medications in both inpatient and outpatient settings. All take-home medications, including discharge, pass, and clinic prescriptions, are ordered under a TAKE HOME MEDICATION session type in CRIS. This directs the orders to the Outpatient Pharmacy for dispensing to the patient. It also allows the order to remain active across subsequent inpatient and outpatient visits, thus facilitating refills by the Clinical Center pharmacy.

In MIS, Prescribers have been able to convert inpatient medications orders to take-home medication orders. In CRIS, Prescribers can use the Reorder - Current function to order take-home medications from current inpatient medication orders; it is critical that the order session type be changed to TAKE HOME MEDICATION prior to submitting these new orders. Medications that are not already ordered for the inpatient are entered as new orders.

No change

- Take-home medications are a medical order for all clinic, discharge, and pass prescriptions.
- Take-home medication orders are verified, prepared, and dispensed by the Outpatient Pharmacy.

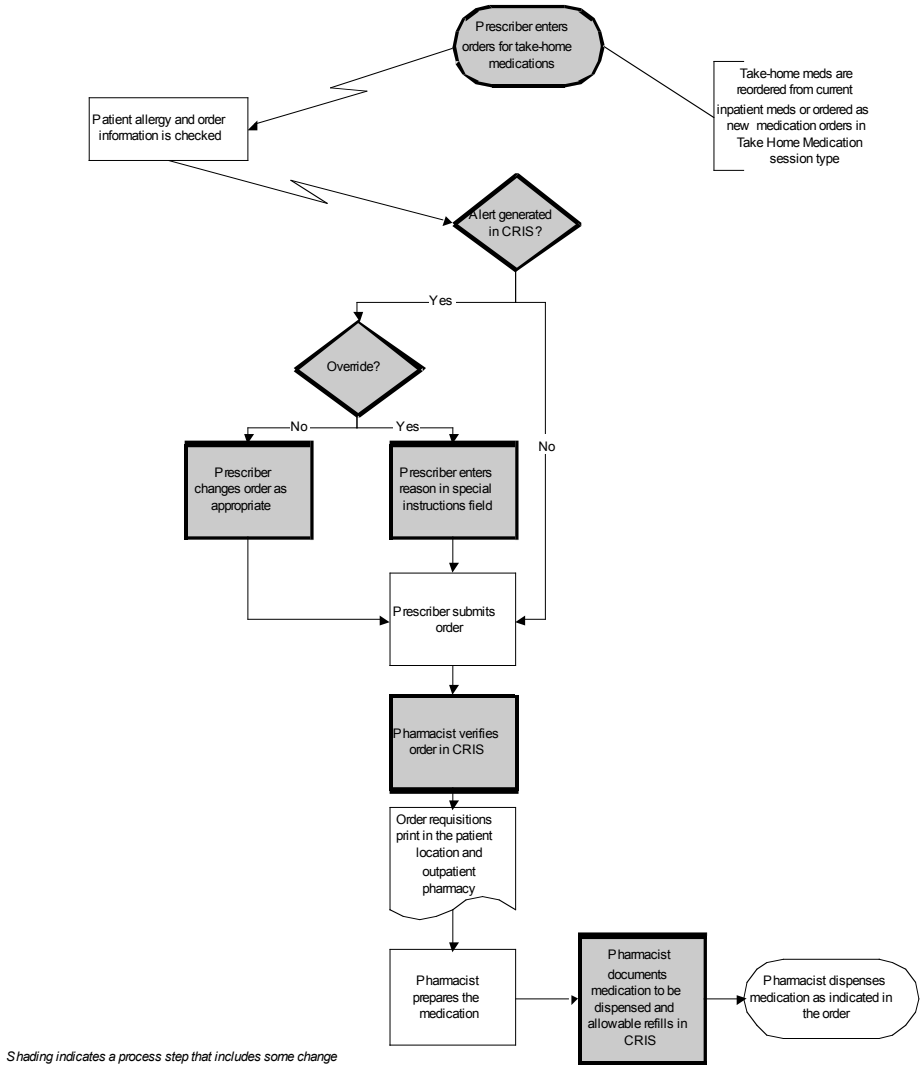
Major points of change

- Active medication orders cannot be "converted" to take-home medications as has been done in MIS. Take-home medications in CRIS require a new medical order entered under a **TAKE HOME MEDICATION** session type.
    - Orders of current inpatient medications for take home are reordered as **TAKE HOME MEDICATION** session type using the Reorder function (available by right-clicking on an order in CRIS).
    - Orders of different medications for use at home are placed as new orders in the **TAKE HOME MEDICATION** session type.
- Take-home medications are not included on the Medication Worklist used by the nurses to document medication administration.
- There are alerts warning of possible drug allergies and/or drug-drug interactions that may appear when placing medication orders.
- Pharmacy verification of the order is documented. No medication orders are active until verified by the pharmacy.
- Prescribers, pharmacists, and nurses are able to view a history of all take-home medications dispensed, as well as their remaining allowable refills.
- The first dose of a take-home medication is sometimes ordered to be given by the nurse before the patient leaves the Clinical Center. This dose can be included in and documented on the Medication Worklist if ordered as a separate one-time order in the Today Outpt/Current Inpt session type.

Notes:

- Prescribers should discontinue all take-home medications which they no longer want the patient to receive. The "active" take-home medications should reflect the patient's therapy currently provided by the Clinical Center outpatient pharmacy.
- Take-home medication orders placed through the copy/reorder function as duplicates of the inpatient medications, since both are active orders. Prescribers should override these alerts when submitting their orders. An alternative approach to avoid these alerts is to suspend all of a patient's take home medication orders at the time of an inpatient admission. These orders may then be unsuspended or discontinued as appropriate at the time of discharge.

CRIS Process Flow - Take-Home Medications



Shading indicates a process step that includes some change

CRIS Process Flow – Take Home Medications Description

1. The Prescriber enters orders for take-home medications.
   - Orders of current inpatient medications for take home are reordered under the TAKE HOME MEDICATION session type using the Reorder – Current function in CRIS.
   - Orders of different medications for take home are placed as new orders in the TAKE HOME MEDICATION session type.
2. Order information is checked at the time of entry and allergy or drug-drug interaction alerts may be generated.
3. If an alert is generated, the prescriber can change the order based on the alert or override the alert, but must enter an override reason in the special instructions field.
4. The Prescriber submits the order(s). The order will display in the pending verification status.
5. The pharmacist verifies the order; the order status changes to active. Upon verification by the pharmacist, order requisitions print in the patient's current registered location and in the Outpatient Pharmacy.
6. The pharmacist prepares the prescription.
7. The pharmacist documents the prescription to be dispensed, including the amount (e.g., 1 month supply) and any allowable future refills.
8. The pharmacist dispenses the prescription as indicated in the order.

Medication Charting

Medication Charting: No change

- Medication administration is documented in MIS by many locations/disciplines and continues in CRIS.

Medication Charting: Major points of change

- The WorkList Manager is used in locations/disciplines that did not use Medication Charting in MIS. These locations/disciplines include outpatient clinics, day hospitals, radiology, ICU's, and the respiratory care department.
- It is easier to document past due meds in CRIS, using filters.
- The CRIS Worklist Manager has an IV task form to document when an IV is started, as well as episodic assessments such as flow rate, flushes, and site assessments.
- Insulin sliding scale has a special order form in CRIS and is documented somewhat differently than other medication orders. The abbreviations AC and PC (meals) are no longer available. However, medications can still be ordered "before meals" or "after meals."
- IV access line flushes for central, apheresis, and PICC lines are in order sets in CRIS ("flush orders"). These are documented in the Worklist Manager.
- There is a separate task on the worklist to read a skin test.

Specimen Collection

Summary

The Specimen Collection processes include the inpatient AM 'batched' blood collection, inpatient blood and non-blood collections, research specimens, outpatient clinic specimen collections, specimen collections in the Outpatient Phlebotomy department, add-on specimen tests, and mail-in specimen processes.

Blood and non-blood specimens are collected from NIH patients in outpatient clinics, the Outpatient Phlebotomy Department, day hospital units, inpatient units, diagnostic areas, operating rooms, and treatment areas. These specimens may be used for therapeutic and/or research purposes.

Background:

Prior to CRIS, only specimens collected in the early morning 'batched' inpatient collection and specimens collected in the Outpatient Phlebotomy Department were labeled at the point of collection with bar-coded labels from the laboratory information system (LIS). Specimens collected at other times or in other locations were labeled with Admissions labels (which include patient name, date of birth, and medical record number) and sent to the labs with a transmittal sheet which contains specific order information regarding tests to be performed on the specimen. When specimens labeled with Admissions labels were accessioned into the labs, they were re-labeled with LIS bar-coded labels. This re-labeling was labor intensive for the labs, and, with the potential for mislabeling in such a large volume, represented a patient safety risk.

Most orders for lab tests on inpatient specimens were entered into MIS directly by the Prescriber or a research nurse on behalf of the Prescriber. In outpatient clinics, however, a paper order form was frequently used to order lab tests. These orders were then transcribed into MIS by phlebotomists in the Outpatient Phlebotomy or by clinic secretaries.

No Change

- The daily AM specimen collection is still the primary collection of the day for inpatients.
- On units with phlebotomy coverage, nurses will still determine which blood specimens are drawn by nurses and which by phlebotomists.
- An Order Requisition prints on the inpatient unit or outpatient clinic when an order requiring a specimen is entered and active. This serves as notification to care providers.

Major points of change

- Most specimens are labeled with lab barcode labels, not general admission labels.

- There is no 'Specimen collected' functionality in CRIS.
    - Order status will remain 'pending collection' until the specimen is received and accessioned in the lab, which will change the status to 'Specimen Received by Dept.'
    - Collection times are not captured at the time of collection for most specimens, but rather are recorded as the time received in lab.
- Labels for specimen tubes and containers can print on inpatient units, outpatient clinics, Outpatient Phlebotomy Department, OR/PACU, and selected other areas (on new Zebra label printers).
- Labels print by default at a patient's registered location. During order entry a user can select a different location to print lab barcode labels for specimens if needed.
- Specimen tubes and containers with lab barcode labels in most cases are sent to the lab with no accompanying paperwork.
    - There is no separate print-out called a 'T' sheet.
    - There is a short list of designated tests that need additional information recorded by the collector (e.g., pre- and post- drug levels).
    - The Order Requisition form which prints when an order is entered (or when released if it is a Future Outpt/Pre-Admit order) is used as paperwork for these exceptions.
    - Required information for these designated specimens is handwritten on the barcode label or the Order Requisition form; the latter is sent to the lab with the specimen.
    - Research blood, urine, and other specimens are collected as directed on the Order Requisition. Research blood, urine, and other specimens are labeled with lab barcode labels. All research specimens are sent or delivered with the Order Requisition form serving as the accompanying paperwork.
    - Anatomic path specimens continue to be labeled with admission labels and sent to the lab with paper order requisitions.
- Prescribers enter orders in CRIS for add-on tests to specimens already collected and received in the lab.
    - The lab should always be contacted first to assure specimen availability.
    - The lab performing the test is selected within the order from the label printing location options (e.g., for chemistry tests, select Lab: Chemistry).
    - The label printed in the lab communicates the order; the printed order requisition does not need to be sent to the lab.
- The paper order system used in outpatient clinics to communicate orders to the lab (or other areas) is eliminated with the implementation of CRIS. Paper orders will be accepted by the lab only during CRIS downtime.

- Lab orders, including research specimens, are entered directly into CRIS by the prescriber, or by a member of the Affiliate Medical Staff on behalf of the prescriber.
- Clinic clerks do not have security to enter any medical order into CRIS.
- Phlebotomists in the Outpatient Phlebotomy Department no longer enter lab orders as verbal orders or from paper order forms.
- Clerks in Outpatient Phlebotomy cannot enter orders but can release Future Outpt/Pre-Admit orders and reprint order requisitions.

Specimen Collection: Key Concepts

- Specimens, including those collected for research, are labeled with lab barcode labels rather than with general admissions labels with few exceptions (e.g., anatomic pathology).
- There is no 'Specimen collected' functionality in CRIS.
- Barcode labels print by default at a patient's registered location. A different location for label printing can be chosen when needed at the time of order entry. Order requisitions print at the patient's registered location; these forms can be reprinted on demand as needed.
- Barcode labels must be matched to the correct tube or collection container.
- Specimen tubes and containers with lab barcode labels in most cases are sent to the lab with no accompanying paperwork.
- Requests for add-on tests to specimens already in the lab are entered directly in CRIS.
- The paper order system used in Outpatient clinics to order lab tests has been eliminated.

CRIS Process Flow Descriptions and Diagrams - AM 'batched' blood draw - Inpatient

The primary blood specimen collection of the day occurs in the morning. The CIRS process continues to be much like the MIS process. Specimens for lab tests that are ordered as 'routine' prior to the scheduled collection date and/or blood specimens scheduled to be collected in the AM are 'merged' or 'batched' so that the collector (either a phlebotomist or RN) draws the minimum amount of blood required for all the ordered tests. The Charge Nurse on the unit determines which specimens are to be collected by the patient's nurse and which by a phlebotomist. This is the only inpatient collection process of the day in which phlebotomists routinely participate; individual specimens drawn later in the day are collected by the patient's nurse or a phlebotomist contacted specifically for the draw. Not all inpatient units are served by phlebotomists.

Early each morning, Laboratory Information System (LIS) bar-coded labels for all AM draw specimens are printed. The printing location depends on the collection patterns of each inpatient unit.

- For units where routine AM specimens are collected by both nurses and phlebotomists, labels will print in the Phlebotomy Department. Phlebotomists will bring the labels to the units on their rounds, set up and label tubes for the AM collection, and collect the specimens for which they're responsible.
- For units where routine AM specimens are collected only by nurses, labels are printed directly on the inpatient unit on special label printers. These labels are placed in a designated location by the unit clerk or head nurse, and are available to the nurse responsible for drawing the blood specimens.

For collections in either location, specimens are labeled with LIS bar-coded labels at the point of collection and sent to the lab. No paper form is usually required to accompany the specimen because the LIS bar-coded label includes all necessary patient identification and test information. Some tests require that additional information be recorded on the specimen label of the order requisition. The list of these tests will be available in each patient care area.

If a nurse must collect and send specimens before the phlebotomist has arrived on the unit with the AM labels, the specimens may be labeled with admission labels and sent with the printed order requisitions to the lab.

Major points of change

1. RNs and phlebotomists label specimens with LIS bar-coded labels instead of generic admission/MIS labels.
2. LIS bar-coded labels for AM specimens print directly on the inpatient unit where the patient is located if only nurses collect specimens on the unit. LIS bar-coded labels print in the Phlebotomy Department for the AM draw for those units where both nurses and phlebotomists collect specimens.

CRIS Process Flow - AM (Batched) Blood Draw – Inpatients - Ordering Process

1. Order is placed in CRIS by prescriber or affiliate medical staff (AMS).
2. Session type is "Today Outpt/Current Inpt" by default, so no selection needs to be made for inpatients.
    a. The specimen collection location field is blank by default, indicating the specimen will be collected at the patient's registered location at the date/time requested. The prescriber should select another location from the drop down list if appropriate.
3. An Order Requisition prints immediately on the inpatient unit.
4. Charge RN/Clerk places the Order Requisition in a designated location.
5. Early each morning all blood draw orders due for collection cross to LIS (between 12am and 4am) and the specimen merge occurs.
6. Specimen Pick-up List (from LIS) will print in Central Accessioning area (~4am).

7. Nursing Unit Worksheet (a.k.a., unit census) will print on each inpatient unit (~4am) and will be placed in a designated area.
8. LIS bar-coded labels will print in either Phlebotomy or directly on each inpatient unit, depending on the collection process for the unit and will be placed in a designated area.
9. Charge RN indicates on Nursing Unit Worksheet which specimens are to be drawn by RN or phlebotomist.

Phlebotomist Collects Specimen

1. Phlebotomist arrives at the inpatient unit with LIS bar-coded labels.
2. Phlebotomist checks labels against the Specimen Pick-up List.
3. Phlebotomist sets up and labels all tubes for morning draw, including research specimen tubes if set out.
4. Phlebotomist checks the Nursing Unit Worksheet to determine which patients are phlebotomist draws.
5. Phlebotomist draws blood specimens for indicated patients.
6. Phlebotomist transports or sends specimens to the lab; research specimen tubes are given to nursing for appropriate distribution.
7. Lab receives the specimens and defaults the collection date and time in LIS to the received date and time.
8. LIS sends received date and time as collection time to CRIS, which statuses the original order in CRIS as "Specimen Received by Dept."

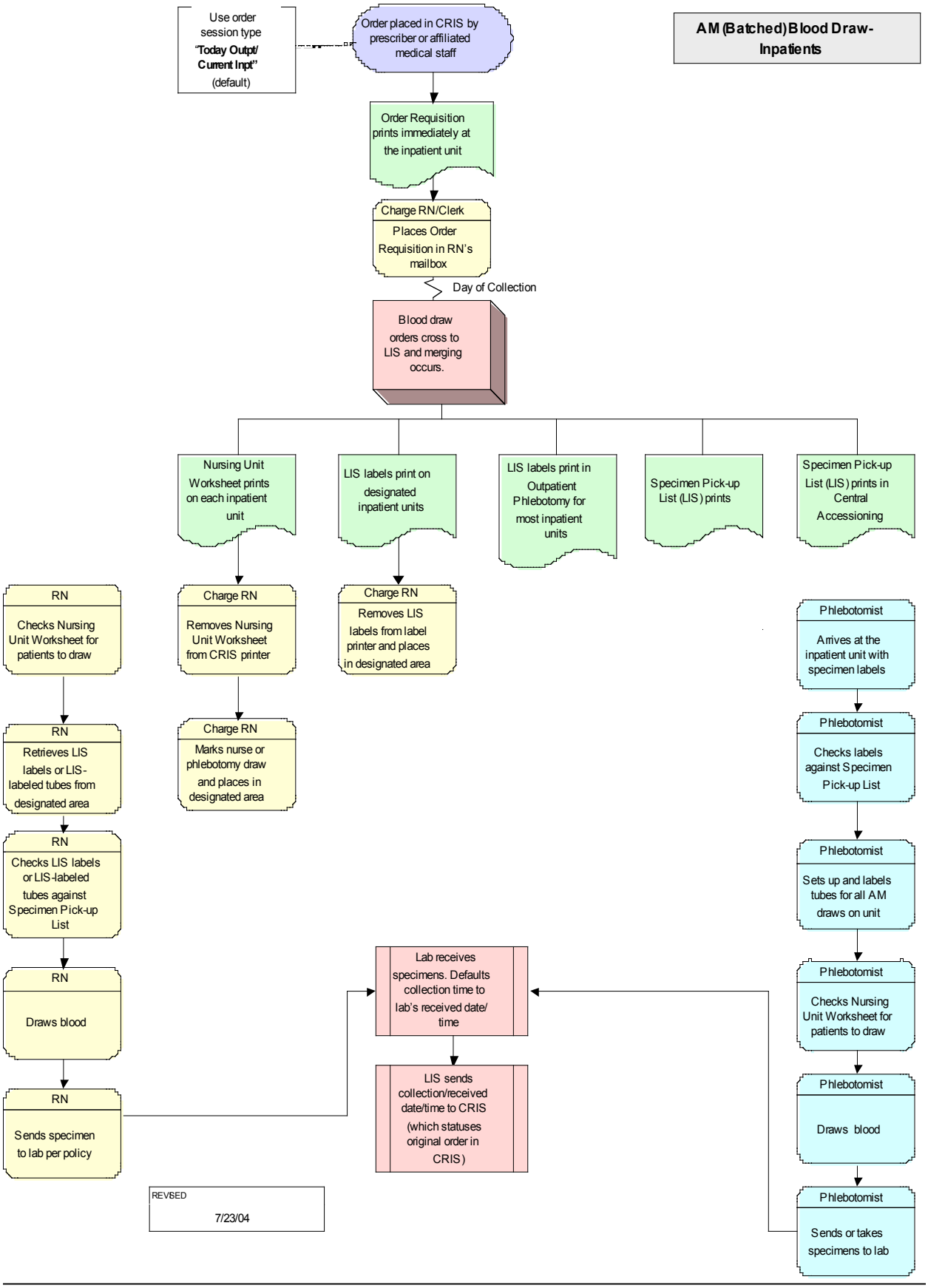
Nurse Collects Specimen

1. RN checks the Nursing Unit Worksheet to determine which patients are nurse draws.
2. RN retrieves the bar-coded labels or tubes from the designated area.
3. RN checks bar-coded labels or tubes against the Specimen Pick-up List.
4. RN draws blood specimens for indicated patients.
5. RN has specimens transported to the lab according to policy.
6. Lab receives the specimens and defaults the collection date and time in LIS to the received date and time.
7. LIS sends received date and time as collection time to CRIS, which statuses the original order in CRIS as "Specimen Received by Dept."

Notes:

- A review process exists on each unit to assure all ordered specimens were drawn and to discard leftover/unnecessary labels.
- Sometimes an additional test is ordered after the routine morning collection bar-coded labels are printed, but prior to the morning specimen collection. If this additional test can be collected in the same tube as one of the routine morning tests, the additional test label should be sent to the lab along with the routine morning specimen. The additional test will then be performed on the collected morning specimen to save the patient an additional draw.

- If a specimen is drawn before the phlebotomist arrives on the unit, the nurse will label the specimen with an admission label and send the specimen with a printed order requisition.


AM (Batched) Blood Draw- Inpatients
Use order session type "Today Outpt/ Current Inpt" (default)
Order placed in CRIS by prescriber or affiliated medical staff
Order Requisition prints immediately at the inpatient unit
Charge RN/Clerk
Places Order Requisition in RN's mailbox
Day of Collection
Blood draw orders cross to LIS and merging occurs.
Nursing Unit Worksheet prints on each inpatient unit
LIS labels print on designated inpatient units
LIS labels print in Outpatient Phlebotomy for most inpatient units
Specimen Pick-up List (LIS) prints
Specimen Pick-up List (LIS) prints in Central Accessioning
RN
Checks Nursing Unit Worksheet for patients to draw
Charge RN
Removes Nursing Unit Worksheet from CRIS printer
Charge RN
Removes LIS labels from label printer and places in designated area
Phlebotomist
Arrives at the inpatient unit with specimen labels
RN
Retrieves LIS labels or LIS-labeled tubes from designated area
Charge RN
Marks nurse or phlebotomy draw and places in designated area
Phlebotomist
Checks labels against Specimen Pick-up List
RN
Checks LIS labels or LIS-labeled tubes against Specimen Pick-up List
Phlebotomist
Sets up and labels tubes for all AM draws on unit
RN
Draws blood
Lab receives specimens. Defaults collection time to lab's received date/ time
Phlebotomist
Checks Nursing Unit Worksheet for patients to draw
RN
Sends specimen to lab per policy
LIS sends collection/received date/time to CRIS (which statuses original order in CRIS)
Phlebotomist
Draws blood
Phlebotomist
Sends or takes specimens to lab
REVISED
7/23/04

Non-batched blood and non-blood collection process - Inpatient

All non-blood specimens and blood specimens scheduled to be collected at times other than the standard AM draw are collected at the requested time. An Order Requisition form prints at the patient's location at the time the inpatient lab order is entered; this serves as a notification of a new order. All information from the order in CRIS is included on the Order Requisition.

Lab orders cross to LIS on the scheduled date of collection. On that date, LIS labels print at the patient's registered location, and are used to label the specimen at the point of collection. In CRIS, the nurse no longer goes to the computer to indicate that the specimen has been collected, and no transmission sheet is generated. Specimens labeled with LIS bar-coded labels do not require a paper form (i.e., the Transmission sheet in MIS) unless additional information from the collector is required. If additional information is required, it must be written on the printed Order Requisition form and/or the label and sent to the lab with the specimen. For certain specimens, only collection date/time is required, and can be written on the specimen label. (Please refer to the lab guide manual at the DLM website for further details.)

Major points of change

- Specimens are labeled with LIS labels at the point of collection
- 'Specimen collected' is not entered in CRIS as it was in MIS
- Most specimens labeled with LIS labels do not require a transmission sheet or other paper form when sent to the lab
- Time of collection or additional information, when needed, is hand-written on either the LIS label or an Order Requisition form that should accompany the specimen to the lab

CRIS Process Flow - Non-Batch Bloods and Non-Blood Specimens-Inpatient

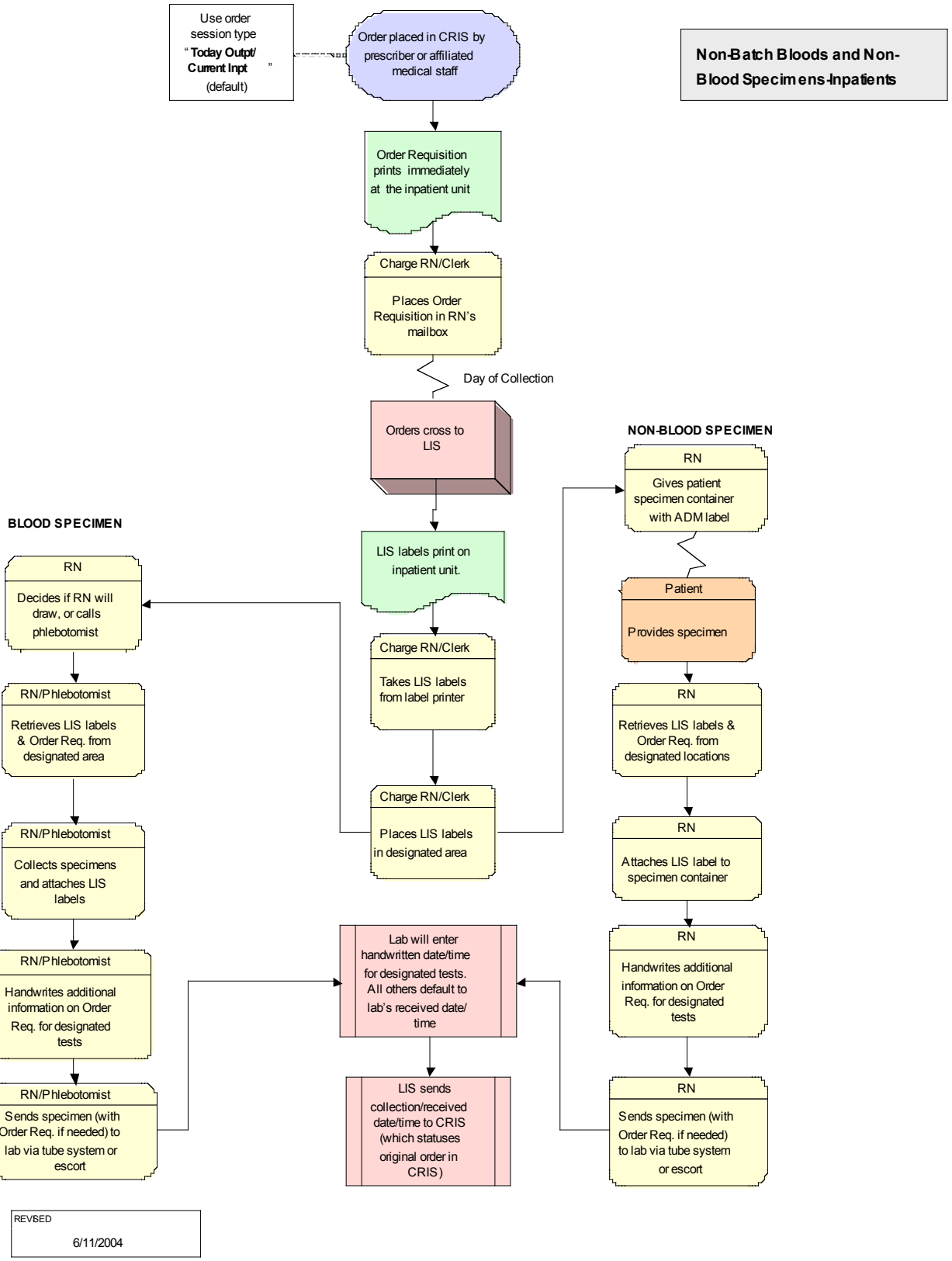
1. Order is placed in CRIS by prescriber or affiliated medical staff (AMS).
2. Session type is "Today Outpt/Current Inpt" by default, so no selection needs to be made for inpatients.
    - The specimen collection location field is blank by default, indicating the specimen will be collected at the patient's registered location at the date/time requested. The prescriber should select another location from the drop down list if appropriate.
3. An Order Requisition prints immediately at the inpatient unit.
4. Charge RN/Clerk places Order Requisition in a designated location.
5. Order crosses to LIS on date due to be collected.
6. LIS bar-coded labels print on inpatient unit on day of collection.
7. Charge RN/Clerk takes LIS bar-coded labels from the label printer.
8. Charge RN/Clerk places LIS bar-coded labels in designated area.

Blood Specimens

1. RN decides if RN will draw or calls phlebotomist.
2. RN/phlebotomist retrieves LIS bar-coded labels and Order Requisitions from designated area.
3. RN/phlebotomist collects specimens and attaches LIS bar-coded labels.
4. RN/phlebotomist handwrites additional information on Order Requisition and/or label for designated tests.
5. RN/phlebotomist sends specimens (with Order Requisition if needed) to lab via tube system or escort.
6. Lab will enter handwritten date/time as the collection time for timed tests in LIS; all other specimens default to lab's received date/time.
7. LIS sends collection date/time and received date/time back to CRIS which statuses the original order in CRIS as 'collected'.

Non-Blood Specimens

1. RN gives patient specimen container with Admissions label.
2. Patient provides specimen.
3. RN retrieves LIS bar-coded label and Order Requisition from designated area.
4. RN attaches LIS bar-coded label to specimen container.
5. RN handwrites additional information on Order Requisition and/or label for designated tests.
6. RN sends specimens (with Order Requisition if needed) to lab via tube system or escort.
7. Lab will enter handwritten date/time as the collection time for timed specimens in LIS; all other specimens default to lab's received date/time.
8. LIS sends received date/time back to CRIS, which statuses the original order in CRIS as 'collected'.


Use order session type "Today Outpt/ Current Inpt" (default)
Order placed in CRIS by prescriber or affiliated medical staff
Non-Batch Bloods and Non-Blood Specimens-Inpatients
Order Requisition prints immediately at the inpatient unit
Charge RN/Clerk
Places Order Requisition in RN's mailbox
Day of Collection
Orders cross to LIS
LIS labels print on inpatient unit.
Charge RN/Clerk
Takes LIS labels from label printer
Charge RN/Clerk
Places LIS labels in designated area
BLOOD SPECIMEN
RN
Decides if RN will draw, or calls phlebotomist
RN/Phlebotomist
Retrieves LIS labels & Order Req. from designated area
RN/Phlebotomist
Collects specimens and attaches LIS labels
RN/Phlebotomist
Handwrites additional information on Order Req. for designated tests
RN/Phlebotomist
Sends specimen (with Order Req. if needed) to lab via tube system or escort
NON-BLOOD SPECIMEN
RN
Gives patient specimen container with ADM label
Patient
Provides specimen
RN
Retrieves LIS labels & Order Req. from designated locations
RN
Attaches LIS label to specimen container
RN
Handwrites additional information on Order Req. for designated tests
RN
Sends specimen (with Order Req. if needed) to lab via tube system or escort
Lab will enter handwritten date/time for designated tests. All others default to lab's received date/ time
LIS sends collection/received date/time to CRIS (which statuses original order in CRIS)
REVISED
6/11/2004

Outpatient Lab Orders
Prior to CRIS, all outpatient laboratory orders to be drawn by outpatient phlebotomy were ordered on a paper form. If the specimens were to be collected on the same day, the patient took this form with him/her to Outpatient Phlebotomy. If the specimens were to be collected on a future date, the form was either given directly to the patient to bring back on the scheduled draw date, stored in the clinic by date, or forwarded to outpatient phlebotomy and stored by date. When the patient arrived on the designated date for specimen collections, the Outpatient Phlebotomist placed the order in MIS as an "agent for" the prescriber.

If the specimens were to be collected in clinic, the prescriber or clinic RN (as "agent for") entered the orders into MIS.

With CRIS, the paper order forms have been eliminated. All lab orders are entered in CRIS, either for "Today Outpt" when due to be collected on the same day, or else for a "Future Outpt" encounter; these orders will be released at the time the patient returns. If the date of the expected encounter changes, this information can be updated in these "Future" orders prior to their being released.

Per MEC policy, only prescribers or those authorized to act as "agents for" prescribers can enter lab or other orders in CRIS.

Major Points of Change
- Lab orders are entered directly into CRIS by providers; order sets in CRIS make direct order entry faster and more convenient
- The paper order form process in outpatient clinics has been eliminated
- Phlebotomists do not enter lab orders from paper order forms
- Clinic clerks cannot enter orders into CRIS as agents for prescribers

CRIS Process Flow – Outpatient Lab Orders - FUTURE OUTPT/PRE-ADMIT Orders
1. **Future Outpt/Pre-Admit** order is placed in CRIS by prescriber or AMS.
2. Prescriber or AMS may select the specimen collection location/LIS bar-coded label print location from a pull down menu.
   - If this area is left blank (the default value) the LIS bar-coded labels will print at the patient's current registered location at the time the order is released.
   - If order is released by OP Phlebotomy staff, the system will print LIS labels in Outpatient Phlebotomy Department regardless of location selected.
3. Order is submitted; process stops until the patient returns to the CC and the order is released. No order requisitions or labels print until the order is released.

CRIS Process Flow – Outpatient Lab Orders - TODAY OUTPT/CURRENT INPT Orders

1. **Today Outpt/Current Inpt** order is placed in CRIS by prescriber or AMS.
2. Prescriber or AMS may select the specimen collection location/LIS bar-coded label print location from a pull down menu.
   - If this area is left blank (the default value) the LIS labels will print at the patient's current registered location, since the specimen is expected to be collected at this location.
3. Order is submitted; Order Requisition prints immediately at patient's current registered location.
4. Order crosses from CRIS to LIS.
5. LIS labels print at specified location (default is patient's registered location).

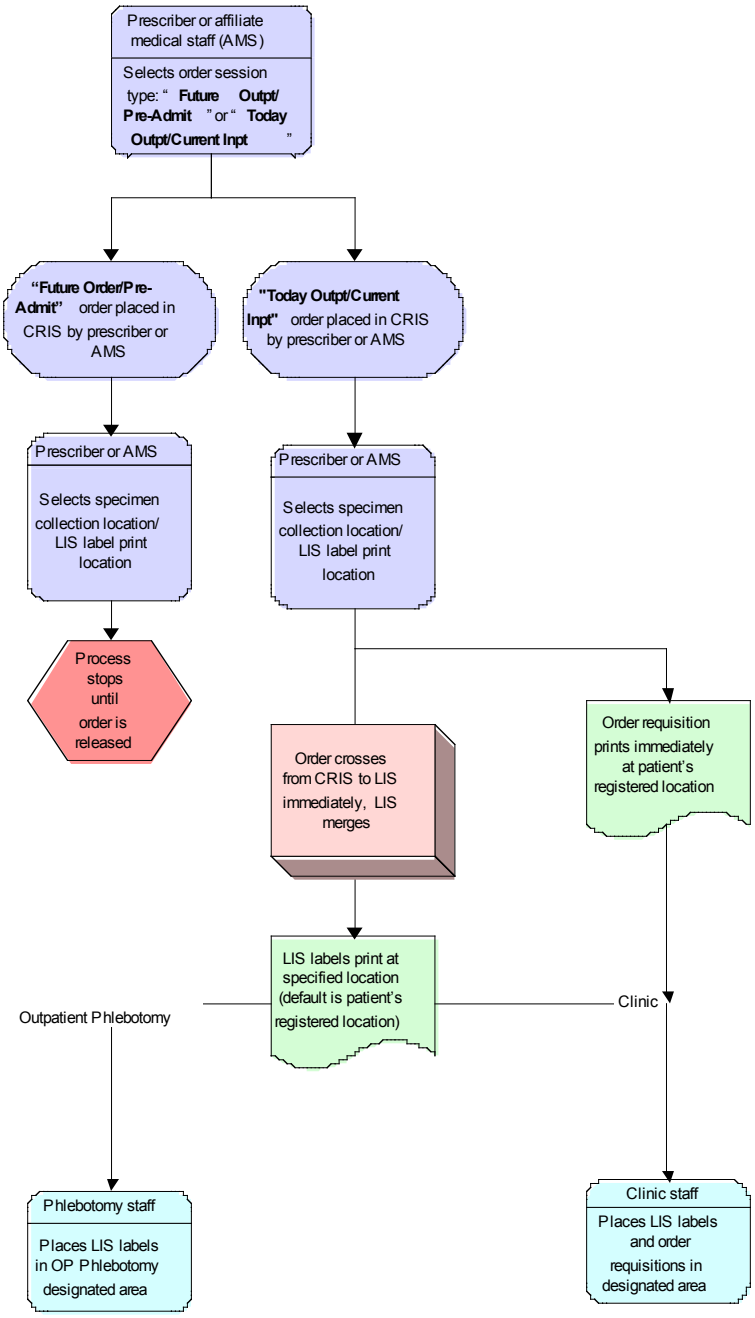
Specimen to be collected in Clinic

- If specimen is to be collected in the clinic, staff places Order Requisition(s) and LIS labels in location determined by clinic.

Specimen to be collected in Outpatient Phlebotomy

- Any special instructions are written on the order requisition and given to the patient in a recyclable envelope to carry to Outpatient Phlebotomy for specimen collection.
- If LIS bar-coded labels have inadvertently printed in the clinic, the clinic staff will place the labels with the requisition(s) in a recyclable envelope, and give the envelope to the patient.
- LIS bar-coded labels will print in Outpatient Phlebotomy if this location is selected as the specimen collection site in the lab order in CRIS.

Outpatient Lab Orders



REVISED
6/11/2004

Specimen Collection Process – Outpatient Clinic

Major points of change

- The paper order form process has been eliminated.
- Prescribers or affiliate medical staff acting as "agent for" the prescriber enter lab orders directly into CRIS.
- If collection is to be in Outpatient Phlebotomy after the patient is seen in clinic, the patient will carry the Order Requisitions in a recyclable envelope to Outpatient Phlebotomy.
- Label printers which can produce both LIS bar-coded labels and Admission labels are located in each outpatient clinic area.
- LIS bar-coded labels are printed at the above locations, and specimens are labeled with these labels at the point of collection.
- There is no transmission sheet ('T' sheet) in CRIS.
- Except for a limited number of designated tests, specimens labeled with LIS labels do not need any accompanying paper form such as a 'T' sheet when sent to the lab.
  - For those designated tests which do require additional information to be hand-written by the collector, the Order Requisition form which prints at the patient's location is used and sent to the lab with the specimen. Some information may be written on the LIS bar-coded label (e.g., timed test).
- The default process, should LIS labels be unavailable for some reason, is to label the specimen with an Admission label and send the specimen with the Order Requisition form to the lab.

CRIS Process Flow - Specimen Collection Outpatient Clinic

1. RN checks CRIS for **Today Outpt/Current Inpt** and **Future Outpt/Pre-Admit** lab orders for patient.
   - To facilitate order retrieval, special filters will be used to display **Today Outpt/Current Inpt** and **Future Outpt/Pre-Admit** orders.

2. RN determines where the specimen is to be drawn: clinic or outpatient phlebotomy.

   Specimen to be collected in Outpatient Phlebotomy

   For **Today Outpt/Current Inpt** orders, the RN gathers order requisitions and labels (if printed in the clinic), places in recyclable envelope, and gives to patient to take to outpatient phlebotomy.

   For **Future Outpt/Pre-Admit** orders that will be drawn in outpatient phlebotomy, the RN does not release the orders and sends patient to outpatient phlebotomy. Outpatient Phlebotomy will release the orders upon patient arrival.

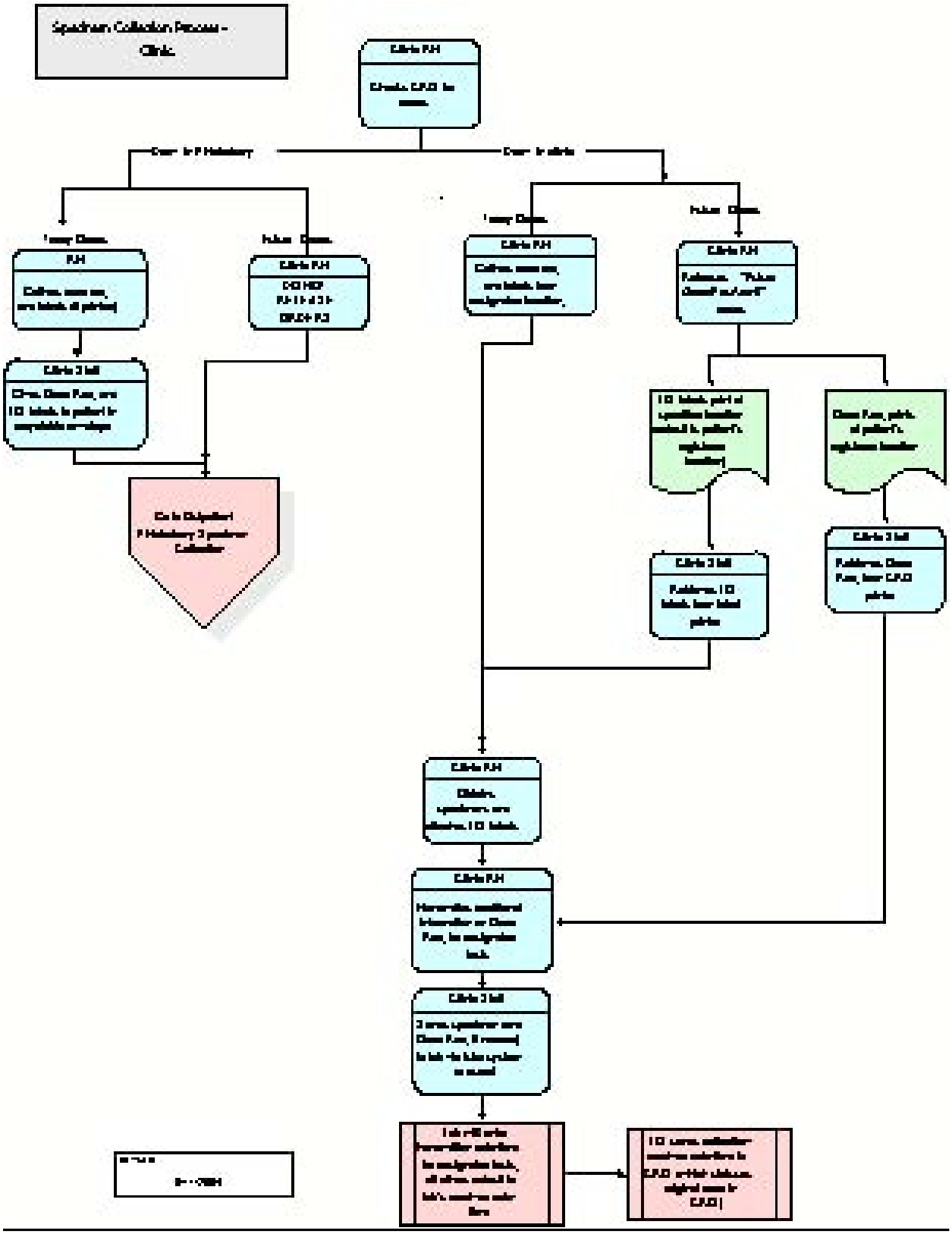
Specimen to be collected in Outpatient Clinic

For **Today Outpt/Current Inpt** orders that will be drawn in clinic, the RN gathers the labels and begins collection process (see step 3).

For **Future Outpt/Pre-Admit** orders that will be drawn in clinic, the RN releases the orders.

a. LIS bar-coded labels will print in the location specified in the order (default is patient's registered location).
b. Order requisitions print at patient's registered location.
c. Clinic staff retrieves bar-coded labels and Order Requisitions from printers.
    - Note: If the clinic where the specimen to be collected is not the patient's registered location, and the label location drop-down field in the order does not identify the clinic as the print location, the order must be discontinued and reordered to obtain LIS labels.

3. Clinic RN obtains specimens and attaches LIS labels.
4. Clinic RN handwrites additional information on the label and/or Order Requisition for designated tests.
    - Note: RN handwrites the correct date on the LIS label when sending non-blood specimens that were collected on a date other than the preprinted date.
5. Lab will enter handwritten date/time for timed tests as the collection time. All others default to the date/time the lab received the specimens.
6. LIS sends received date and time to CRIS, which statuses the original order in CRIS as 'collected.'



Specimen Collection in Outpatient Phlebotomy

Major points of change

- Phlebotomists will no longer enter orders as "agent for."
- Phlebotomy staff will review all lab orders for both session types to determine which specimens are to be collected that day.
- Phlebotomy staff will release all **Future Outpatient/Pre-admit** orders that are to be collected at that time.
- Phlebotomists will gather all Order Requisitions and LIS bar-coded labels for the specimen collections.
- Research specimens (blood, urine, and other) must be ordered in CRIS. These orders will contain the necessary collection instructions and also drive the printing of LIS labels for the specimens.

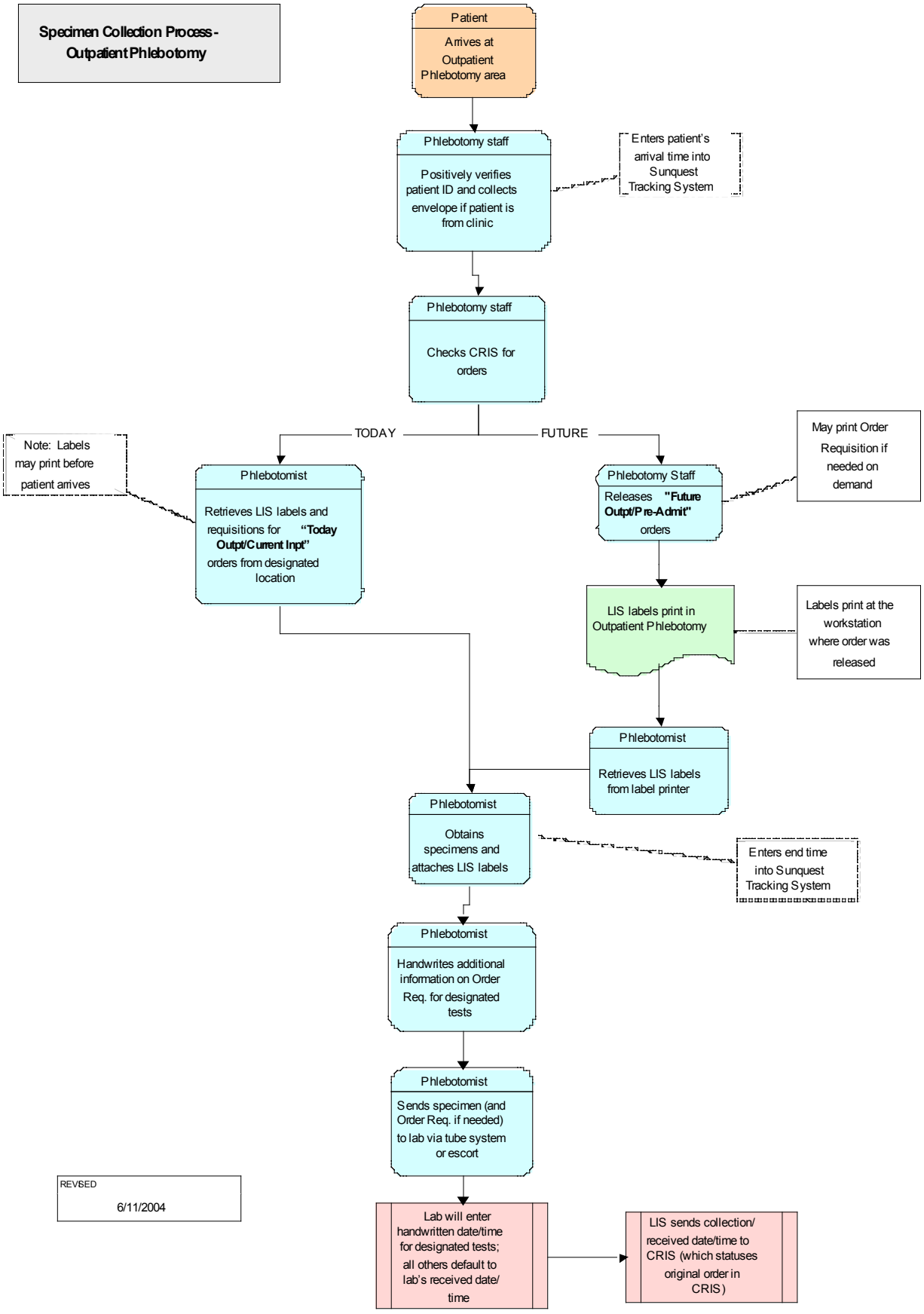
CRIS Process Flow - Specimen Collection Process – Outpatient Phlebotomy

1. Patient arrives in OP Phlebotomy Department and gives name at desk.
   - If coming from the clinic, the patient hands the envelope containing order requisitions and LIS bar-coded labels (if any) to the OP Phlebotomy staff.
   - OP Phlebotomy staff place requisitions and LIS bar-coded labels (if any) received from patient in designated location.
2. OP phlebotomy staff positively verifies patient's ID.
3. OP phlebotomy staff checks CRIS for **Today Outpt/Current Inpt** and **Future Outpt/Pre-Admit** lab orders for patient. Labels for Today Outpt should have already printed at the dedicated bar-coded label printer in OP Phlebotomy.
   - To facilitate order retrieval, special filters are used to display **Future Outpt/Pre-Admit** and **Today Outpt/Current Inpt** orders.
   - There will be 3 workstations for registering patients in OP Phlebotomy. Each will have its own CRIS printer and LIS bar-code printer.
   - A dedicated bar-coded label printer will generate labels for Today Outpt orders.

   For **Future Outpt/Pre-Admit** orders, the phlebotomy staff releases the orders.
   - LIS bar-coded labels print in OP Phlebotomy Department.
     - Must print order requisition for research and other designated tests.
     - Label and requisitions print at workstation where order was released.
   - Phlebotomist retrieves LIS labels.

For **Today Outpt/Current Inpt** orders, phlebotomist retrieves order requisition(s) and the LIS bar-coded labels delivered by patient or from OP Phlebotomy designated bar-coded label printer.

4. Phlebotomist obtains specimens and attaches LIS labels.
5. Phlebotomist handwrites additional information on label and/or Order Requisition for designated tests.
6. Phlebotomist sends specimen (with Order Requisition if needed) to lab via tube system, moser, or escort.
7. Lab will enter handwritten date/time for designated timed tests as the collection time. All others default to the date/time the lab received the specimens.
8. LIS sends received date and time as collection time to CRIS, which statuses the original order in CRIS as 'collected.'


Specimen Collection Process - Outpatient Phlebotomy
Patient
Arrives at Outpatient Phlebotomy area
Phlebotomy staff
Positively verifies patient ID and collects envelope if patient is from clinic
Enters patient's arrival time into Sunquest Tracking System
Phlebotomy staff
Checks CRIS for orders
TODAY
FUTURE
Note: Labels may print before patient arrives
Phlebotomist
Retrieves LIS labels and requisitions for "Today Outpt/Current Inpt" orders from designated location
Phlebotomy Staff
Releases "Future Outpt/Pre-Admit" orders
May print Order Requisition if needed on demand
LIS labels print in Outpatient Phlebotomy
Labels print at the workstation where order was released
Phlebotomist
Retrieves LIS labels from label printer
Phlebotomist
Obtains specimens and attaches LIS labels
Enters end time into Sunquest Tracking System
Phlebotomist
Handwrites additional information on Order Req. for designated tests
Phlebotomist
Sends specimen (and Order Req. if needed) to lab via tube system or escort
REVISED
6/11/2004
Lab will enter handwritten date/time for designated tests; all others default to lab's received date/time
LIS sends collection/ received date/time to CRIS (which statuses original order in CRIS)

Add-on tests to specimens already in the lab

Additional tests on a specimen already received in the lab can be ordered in CRIS. This is accomplished by first calling to confirm specimen availability in the appropriate lab, then entering a new order in CRIS, indicating that the specimen is in the lab, and choosing a location for the test label to print. There are 6 possible lab locations: Lab – Chemistry, Lab – Hematology, Lab – Immunology, Lab – Microbiology, Lab - TTV, and Lab - HLA. The lab personnel retrieve the LIS labels from their local LIS label printer, add them to the specimen in the lab, and carry out the additional test(s).

Major points of change

- Prescriber enters the order for the add-on test in CRIS. With MIS, lab staff entered these orders directly in their ancillary system, with no countersignature of the order by the prescriber who requested it.
- A paper order requisition is **not** sent to the lab with a handwritten note stating the specimen is already in the lab. In CRIS, selecting the lab location within the new order causes a label to print in that location; this will serve the same purpose for communication as the paper requisition does now. This process facilitates the entry of the order by the prescriber from any location, as the paper lab order requisitions in CRIS print only at the patient's registered location.

CRIS Process Flow – Add-on Tests

1. The prescriber must always call the appropriate lab to make sure there is a specimen suitable for the add-on test. Lab personnel log all such calls.
2. The prescriber enters an order in CRIS for the add-on test.

    a. The prescriber indicates in the Special Instructions field that the "specimen is already in the lab" and any additional information that may be relevant.
    b. The prescriber chooses a location for the labels to print depending on the test ordered (Lab – Chemistry, Lab – Hematology, Lab – Immunology, Lab – Microbiology, Lab – TTV, or Lab – HLA). The lab personnel indicate during the preceding phone call which location to select.

3. Lab personnel retrieve the LIS labels from the printer and follow their local guidelines for labeling either a new tube or the previously received specimen.
4. Lab personnel carry out the additional test.

Notes:

- If the prescriber fails to select the correct label printing location in the CRIS order for the add-on test, the lab will not receive the necessary printed communication/label, and the add-on test will not be performed. The responsibility to select the correct lab location is the prescriber's; this is analogous to sending the MIS paper order requisition to the correct lab.
- If a suitable specimen is not available for the add-on test, a new CRIS order must be entered and a new specimen collected from the patient.

Non-NIH specimens and Non-patient specimens

The ancillary services handle many types of non-NIH patient specimens; these fall into three main categories:

- Referral specimens obtained from patients at outside facilities and sent to NIH for expert analysis. These patients may be asked to join active protocols at some point.
- Non-human specimens (e.g., animals) submitted from one NIH service area to another for testing.
- Human specimens where the identity should not be linked (e.g., blood donor specimens).
    - Non-human specimens that are submitted for testing are typically handled solely in the laboratory information systems (LIS), including SoftLab, SoftMic, and SoftPath. These specimens may be obtained from animals or solutions for possible infusion.
    - Orders for human specimens that should remain unlinked (e.g., blood donors) were traditionally entered in MIS via the NP registration process. In CRIS these orders are entered exclusively in the LIS ancillary systems.

No Change in Process

- Microbiology: Microbiology cultures performed on solutions submitted from pharmacy, epidemiology, and nuclear medicine are submitted to microbiology with a paper form instructing the laboratory which tests to perform. Microbiology techs enter the orders into LIS under fictitious patient names maintained solely in LIS. The unique identify of each specimen is entered as an order comment in LIS. Results may either be reported by the NIH mail service or transmitted by fax through LIS.
- Hematology: Tests performed on animal specimens are submitted to the DLM hematology section with paper requisitions identifying specific tests to be performed. Hematology techs enter the corresponding orders into LIS and report results either by NIH mail or by fax through LIS. Animals are generally identified by the last name of the researcher and the first name of the animal species (e.g., Monkey). The unique identity of each specimen is specified in the LIS order comment.

- Anatomic Pathology: CAP and other proficiency specimens are registered and tested in ancillary systems only.
- NCI: Specimens submitted to microbiology for culture by NCI Surgery Branch on the LAK/TIL cells are performed, with tests ordered on one of two fictitious patients in CRIS: "Data, PBMC" or "Data, Component B." The "Data, PBMC" patient is used to order and result cultures on LAC or TIL cells that are intended for patient infusion. The "Data, Component" patient is used to order and result cultures on reagent grade materials not intended for patient infusion. The individual unique identifier for each specimen is entered as an order comment. Results from "Data, PBMC" are called, while results from "Data, Component" are sent through NIH mail.

Change in Process

- Referral Specimens: For CRIS Phase I, all orders and results on non-NIH patient specimens and non-patient specimens are handled solely by the laboratory information system (LIS).
    - Some specimens are sent through a clinic while others are mailed directly to the testing area. Each testing service and referring protocol coordinator has a process for registering patient specimens and acquiring additional information necessary to process the specimens. In some cases, patient history is necessary to evaluate the specimen, while in other cases it is necessary to learn the identity of potential recipients when screening potential donors.
    - In the event the patient is later enrolled in an NIH protocol, a full admissions process is performed by the Admissions staff from the Form 54/ATV. A new medical record number is assigned during this registration.
    - Bone marrows referred to DLM Hematology (a.k.a., "K marrows") are handled by the laboratory information system in CRIS Phase I.
- DTM: Blood donor specimens are registered in LIS rather than MIS.
- DTM/MICRO: Cultures and gram stains from Human Cell and Tissue Products produced in the Cell Processing Laboratory are ordered and resulted in LIS. Results are retrieved directly from LIS.
- Microbiology: Blood cultures on blood component bags implicated in a transfusion reaction are ordered in LIS rather than in CRIS. Final interpretation of positive culture results is documented in CRIS by DTM staff via the Patient Information tab under Significant Event, Transfusion History.
- Microbiology: Blood cultures on apheresis platelets are ordered in LIS rather than CRIS. Results reports are generated via LIS and distributed by the pneumatic tube system.

Blood Component Preparation and Infusion Orders

In order for blood to be infused two separate orders required:

- A transfusion service order for the preparation of the blood component
- A nursing service order to actually infuse the prepared component
    - An intermediate step is a request from the nursing service to the transfusion service to release the blood component to the Messenger and Escort service, which picks up the pre-ordered blood component and delivers it to the nursing unit for infusion. A second delivery process exists for pre-ordered blood needed in the operating room for surgical procedures.

To prepare a red cell-containing component for infusion it is necessary to order a patient ABO type and screen for irregular antibodies and a crossmatch test to determine compatibility between the patient and the donor units. For plasma components such as Fresh Frozen Plasma and Cryoprecipitate it is desirable to have a patient ABO type on record to match the component type whenever possible.

No Change to Current Processes

- Two separate medical orders are necessary for the infusion of blood components. One is directed to the transfusion service to prepare the component and the second is directed to the nursing service to actually procure and infuse the component.
- Orders for the preparation of blood components (e.g., Type/Screen and Crossmatch) are initiated in CRIS and cross to the blood bank information system.
- Both pre-transfusion testing and the record of blood release to nursing are documented in the blood bank information system.
- Instructions for special processing of blood (blood component modifiers) are placed in CRIS indicating blood is to be irradiated, leukoreduced or washed as applicable.
- The blood product orders in CRIS will display different statuses depending on the stage of processing or activity.
- Nurses document blood infusion in CRIS. The fields on the CRIS flowsheet are duplicates of the documentation used in MIS.

Changes to Current Processes

- The specimen for ABO typing and antibody screening is used to perform pre-transfusion testing until midnight of the third day after collection. In CRIS a message is placed on the Type and Screen order form informing the Prescriber that if the "Repeat" selection is chosen, the specified frequency selected is "Daily every 4 days". In addition, the duplicate checking feature is set to check for duplicate orders 72 hours prior to and after the new order.

- A service requisition is ordered by nursing staff to notify the transfusion service to release blood to messenger and escort personnel. The service requisition replaces the MIS-O-Gram previously used for this purpose. The service requisition is manually completed by the transfusion service staff after the blood is released.

Pre-Operative and Intra-Operative Blood Orders

No Change to Current Processes

- A Maximum Surgical Blood Order Schedule (MSBOS) is mimicked in CRIS as an order set. Prescribers order blood by selecting the scheduled surgical procedure from the order set. This generates an order for a pre-determined number of red blood cells or for a Type and Screen depending on the requirements of the selected procedure.
- An abbreviated blood infusion documentation flowsheet is provided in CRIS to allow for the rapid documentation of blood infused during surgery.

Changes to Current Processes

- In CRIS, the OR float nurse places intra-operative blood orders "as an agent for" the Prescriber. These orders should be countersigned within 72 hours by the Prescriber per MEC policy. In the event that orders need to be placed by the medical technologists, the same process flow of placing the order "as an agent for" the requesting Prescriber is followed.

Transfusion Reactions

Adverse reactions to transfusion are rare but may be life threatening. This requires a mechanism for the immediate recognition and reporting of adverse events related to blood transfusion to the transfusion service, which initiates an evaluation and final classification of the adverse event. DTM may suggest modifications to future blood components or pre-medication to avoid future adverse reactions to blood transfusions.

No Change to Current Processes

- Nursing staff document adverse reactions to transfusion in the blood component administration documentation and send blood bags and all attached solutions to DTM for evaluation.
- The transfusion service performs an evaluation of the reaction based on the results of laboratory testing, record review, and inspection of blood component bags.
- The DTM fellow evaluates all information and assigns a final classification of the reaction. S/he may recommend pre-medication or special processing of blood components for future transfusions to help alleviate adverse reactions.

The results of this final evaluation and recommendation are documented in CRIS.

Changes to Current Processes

- When a reaction to a blood component infusion is suspected, the nurse documents the symptoms in the blood administration flowsheet in CRIS. In addition, a laboratory order is placed for the evaluation of the reaction. This occurs by selecting one of two order sets, "Transfusion Reaction RBC/WBC" or "Transfusion Reaction PLTS/Plasma." The order sets gather necessary information for the laboratory to perform its evaluation and also generate orders for specific tests. Depending on the type of component associated with the reaction, the nurse may be instructed to send post transfusion blood and urine specimens (RBC/WBC).
- The technologist performs testing and documents test results which appear in CRIS. These results previously were available only on paper.
- Once the DTM fellow reviews the results of initial testing, s/he may place orders for additional tests in CRIS as appropriate.
- Once the workup is completed, a summary is documented in the Transfusion Reaction Investigation Note by a transfusion service supervisor.
- The final classification is added to the Patient Information Tab as a Significant Event, type Transfusion History. This ensures that the history of adverse reactions to transfusion is prominently displayed across patient stays.

Consults

Clinical consultation is a frequent and often critical component of patient care at the Clinical Center. Consults are performed by staff from many of the institutes and centers, as well as several outside healthcare providers and organizations in the area. The Clinical Center Consult Review Committee performs monitoring of the quality and efficiency of formal clinical consults.

All requests for clinical consults provided by the institutes should be preceded by a telephone call directly to the consult service before actual order entry into CRIS.

Formal clinical consults may be documented using one of several mechanisms:

- Dictations, electronic distribution, review and signature using the ESA system provided by the Medical Record Department. The completed and signed consult report will be is found in the Results section of CRIS. The original consult order is automatically completed when the completed consult report is entered into CRIS.
- Direct keyboard entry into structured text fields, electronic distribution, review and signature using the ESA system provided by the Medical Record Department. The completed and signed consult report is found in the Results

section of CRIS. The original consult order is automatically completed when the completed consult report is entered into CRIS.
- Handwritten on the hardcopy Consult Report Form that is available using the Item Info tab on the consult order in CRIS or as available on the various nursing units and in the clinics. The completed and signed consult report is filed into the Consult Section of the patient's hardcopy medical record but is not entered into CRIS. The consultant must manually complete the original consult order in CRIS.

No change
- Consults may be dictated or handwritten. Dictation is preferred by the Clinical Center.
- Electronic distribution, editing and signature of consults continue to take place as a part of the transcription process in the ESA system.

Major points of change
- Consultants who either handwrite or directly enter their consults in clinical documentation in CRIS must manually complete the original consult order in CRIS.
- Unique highly structured consult notes may be designed and documented against as a part of the ESA transcription system.

Isolation

Summary

The isolation process is implemented when a patient is determined or suspected to be infected with a pathogen identified by the Epidemiology Service as requiring isolation. Confirmation of infection is through positive microbiology or other appropriate test results. Suspicion of infection can arise during the performance of a patient history or physical assessment. The isolation order may be for one or more of six isolation types: acid fast bacilli (AFB), central nervous system (CNS) precautions, contact, respiratory, special respiratory, or strict. The type of isolation precautions implemented depends on the specific pathogen involved.

The isolation order is a service requisition entered by a prescriber or Epidemiology Service staff member or a nurse as an "agent for". Even though the order completes after the close of a visit, staff members can view Isolation Status across visits as part of the Significant Events in the patient record in CRIS. The Epidemiology Service is responsible for maintaining the Isolation Status in Significant Events. A nurse uses the hospital services website to request an isolation cart be sent to the unit.

Discontinuation of isolation requires 2 steps:

- updating the Isolation Status in Significant Events in the patient record by the Epidemiology Service (nursing may also update)
- discontinuing the order.

No change
- Isolation is an order that can be entered by a Prescriber, an Epidemiology staff member, or by a nurse as "agent for" the Prescriber.
- The Prescriber and Epidemiology staff are notified verbally by phone when isolation is indicated**.**

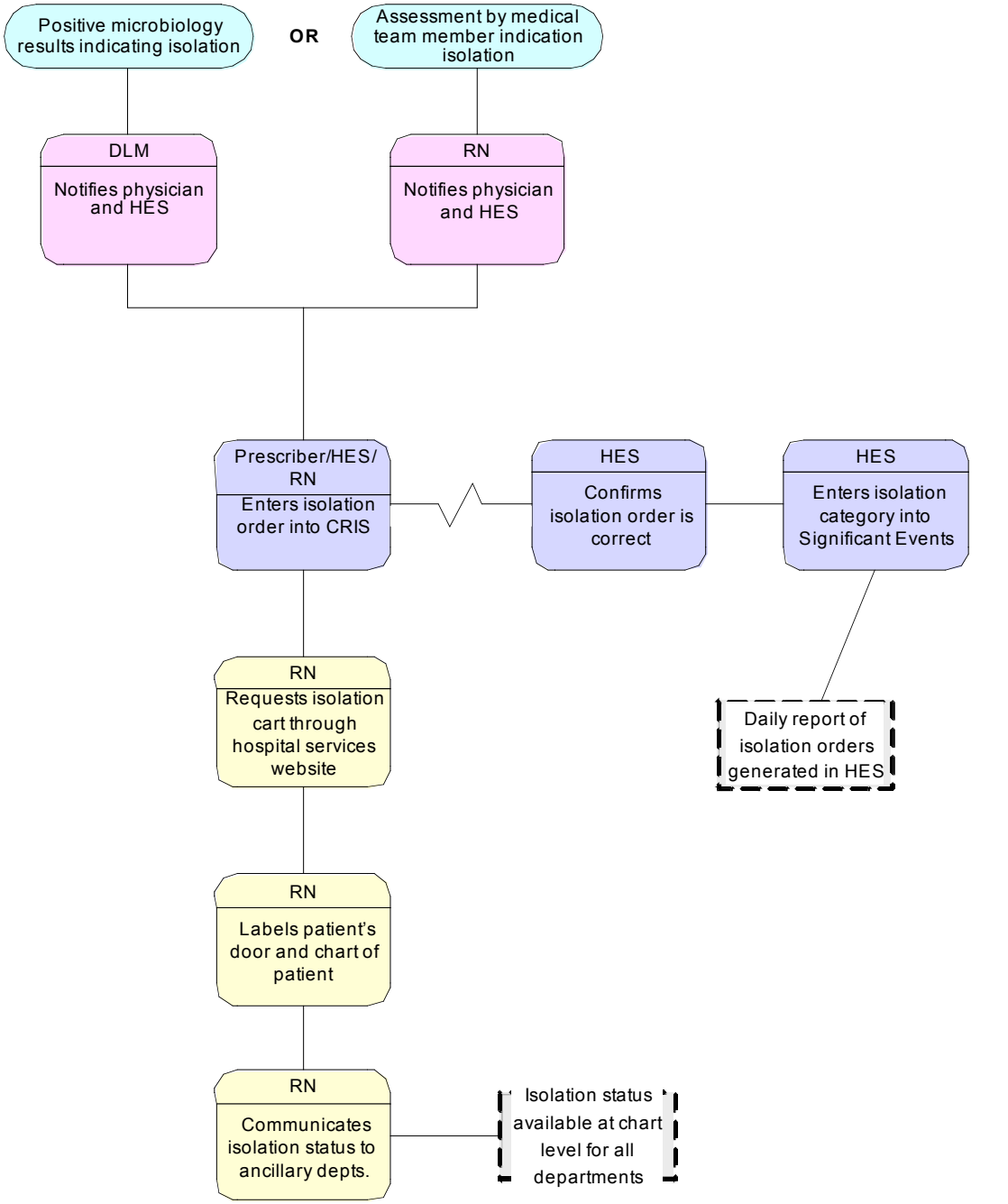
Major points of change
- The Epidemiology Service staff member enters the isolation status in CRIS under Significant Events after the order is reviewed for accuracy.
- The Epidemiology Service is responsible for maintaining an accurate and current isolation status in the patient record in CRIS. Isolation status can be changed as needed in Significant Events.
- Nurses may also enter or update the isolation status in Significant Events when needed.
- The isolation status under Significant Events will remain across visits until manually changed. The order to isolate a patient will automatically be discontinued when the patient is discharged.
- The hospital services website is used to request an isolation cart.

Notes:
- It will be important for nurses and other staff to review the Significant Events section of the patient record for a current isolation status. The Isolation Status under Significant Events will remain across visits.
- Nurses should review Significant Events as part of the initial admission assessment to determine whether the patient required isolation at the time of their last discharge.

CRIS Process Flow – Initiating Isolation
1. Positive microbiology results confirm or an assessment by a medical team member suggests that isolation is indicated.
2. The attending physician and the Epidemiology Service are notified.
    a. The lab communicates positive microbiology or other test results.
    b. The medical team member communicates suspected infection.
3. The Prescriber enters the order for isolation. The nurse or Epidemiology Service staff may enter the order as an "agent for" the Prescriber. An Epidemiology Service staff member must review all orders for isolation.
4. If the patient is isolated on suspicion, the Prescriber orders appropriate cultures.
5. An Epidemiology Service staff member reviews and confirms the order for isolation.

6. An Epidemiology Service staff member enters the isolation status in Significant Events in the patient record in CRIS.
7. The nurse sends for an isolation cart using the Hospital Services website.
8. The nurse labels the patient's door and chart with appropriate isolation communication.
9. The nurse communicates the isolation status to ancillary departments as needed. Isolation status will be available at the chart level in CRIS for any department to view.

CRIS Process Flow - Initiating Isolation



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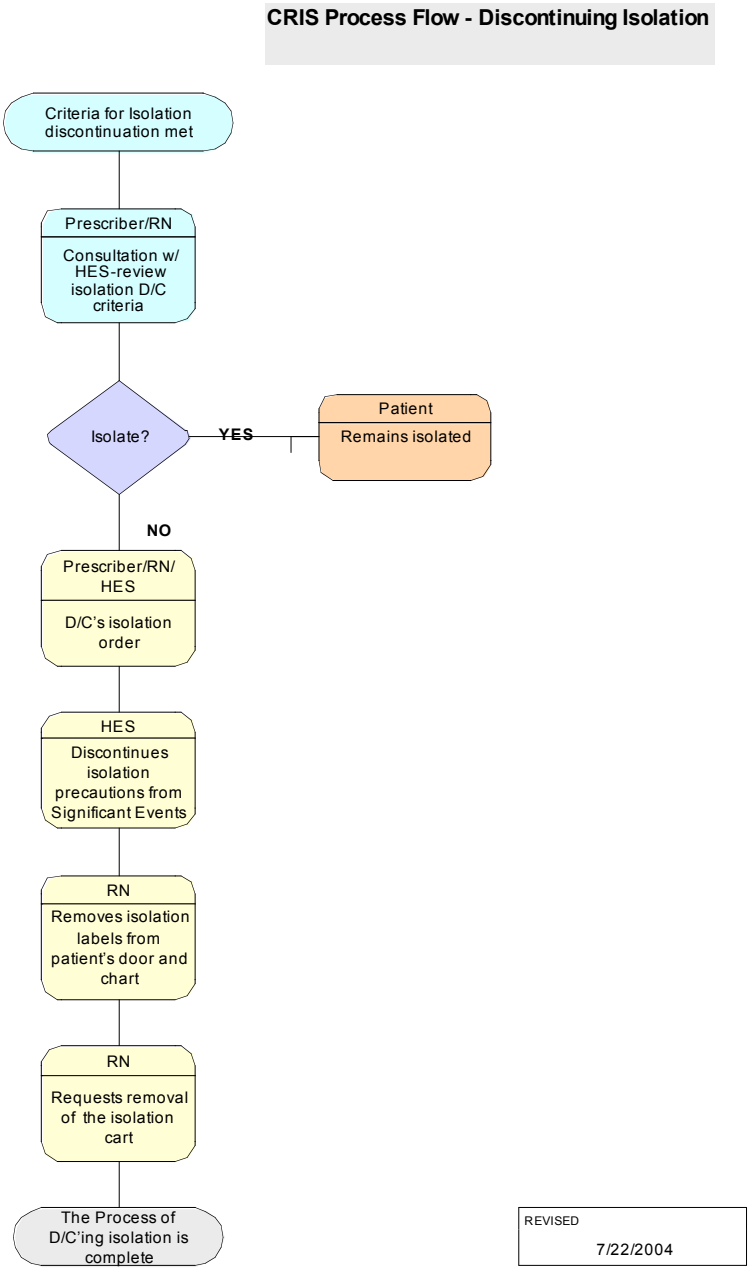
CRIS Process Flow - Discontinuing Isolation

1. When the criteria to discontinue isolation are met, a consultation with the Epidemiology Service is arranged by phone.
2. If it is determined that isolation should be discontinued, the order is discontinued by the Prescriber, an Epidemiology Service staff member, or the nurse in CRIS.
3. An Epidemiology Service staff member discontinues the isolation precautions in Significant Events.
4. The nurse will remove the signs from the door and chart.
5. The nurse will request removal of the isolation cart using a service requisition.



Admission/Travel/Voucher Request System (ATV) (Form 54 Replacement)

A new web-based application called the Admission/Travel/Voucher Request System (ATV) will take over many tasks that used to be handled by the MIS Form 54. Use the ATV system to enter requests for:

- Inpatient admissions
- Outpatient registrations
- Travel requests for government sponsored travel for patients (not employees)
- Travel vouchers for travel reimbursement requests
- Lodging vouchers (including hotels, The Children's Inn and Safra Family Lodge)
- Meal vouchers

ATV Access information
This secure system is web-based and only authorized users will have access. If you need access to be able to enter patients' admission, voucher, and travel requests, please contact the Ambulatory Care Service Office of the Chief, 301-496-2341.

ATV MIS to CRIS terminology
When using the new Admission/Travel/Voucher System, you'll see new terms to describe tasks that will be familiar to MIS users.

MIS Term	CRIS term
MIS (Medical Information System)	CRIS (Clinical Research Informatics System)
Form 54	Admission, Travel, Voucher Request
Meal Ticket or Meal money	Meal Voucher Request
Hotel	Lodging
Outpatient admission	Outpatient Registration
Blanks or box to be filled in	Data field
MIS code	User name and password
Air, Train travel arranged by NIH	U.S. Government sponsored Travel
Car, metro travel reimbursement	Travel Voucher

Tips for Users

- The screens read across from left to right
- A red asterisk (*) denotes mandatory information. The more data fields completed on the search screen, the fewer number of records that will match the criteria
- On the *Pending Request List Search* screen, the status and request type data fields can be used to verify that all requests have been processed or to check the status of a specific request
- Use the ATV confirmation number to search for a specific request
- Create your own reference sheet for the branch name and protocols under that branch by printing them out (use the print icon on the menu bar)

The application has a help tab with step-by-step instructions for submitting each request.

Miscellaneous Information

Basic Windows Skills

Windows skills are necessary to use CRIS. If end-users need Windows training, it is available in the practice lab. There is a Windows Skills CBT available and you can link to it from the CRIS Home Page (http://cris.cc.nih.gov/public).

Nursing Care Plans

There will be no nursing care plans is CRIS. There is a paper tool for interdisciplinary documentation used on the units now.

Date and Time Displays

CRIS uses a 24-hour clock.

- Twenty four hours is defined as starting at 00:00 and ended at 23:59
- Midnight is defined as 00:00 in the CRIS system.
- CRIS displays dates as Month/Day/Year (07/31/04)

MIS-O Grams

MIS-O-Grams are no longer available. Patient specific messages have been replaced with medical orders, service requisitions, and/or administrative requests.

Supplies, equipment services, pharmacy floor stock and maintenance requests (bldg requests) are ordered through the VSC (Visual Supply Catalog).

Volunteer Voucher Form

All payments will be processed through the Clinical Center Hospital Services System (http://supply.cc.nih.gov) using your Clinical Center login.

To enter a new Volunteer Payment Request,

- Login to the Hospital Service application (http://supply.cc.nih.gov).
- In the menu on the left, select (or click on) "New Request" under Volunteer Payment Request (near the bottom).
- You will be prompted for the patient's medical record number. Enter it and select "Search".
- The next screen requires you to check the box next to the patient's name to confirm the correct patient; do so and select "Continue".
- On the next three screens, just fill in the requested information and select "Continue" at the bottom.
- On the last screen review the information you've entered and either select "Modify" to make corrections, or "Submit" to forward the request to the Volunteer Office for payment.

Please be aware that you must have a correct SS# (or EIN#) and CAN # to request a payment. If a volunteer is foreign born without a SS#, then contact the healthy volunteer office at 301-496-4763 to request an EIN number The EIN number will be emailed to the requester within 2 business days and the requester will then enter a payment request. The healthy volunteer office will not be able to correct or add information to your request for payment. All updates will have to be entered by the requester.

- If you have any problems with the forms or need more information on submitting a request, contact Mandy Jawara or Carol Daniels at 301-496-4763.
- If you have any difficulties connecting or logging in, contact Jim Pitts at 301-496-7436, or jpitts@cc.nih.gov.